

THE MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—45TH YEAR

SYDNEY, SATURDAY, NOVEMBER 29, 1958

No. 22

Table of Contents.

[The Whole of the Literary Matter in THE MEDICAL JOURNAL OF AUSTRALIA is Copyright.]

ORIGINAL ARTICLES—		Page	CURRENT COMMENT—		Page
An Address—Some Lessons of Medicine, by S. A. McDonnell		717	Blood Groups and Disease	740	
The Early Symptoms of the Psychoses in General Practice, by E. Cunningham Dax		718	Sir Charles Bell	741	
Early Manifestations of Schizophrenia, by W. H. Trethowan		722	ABSTRACTS FROM MEDICAL LITERATURE—		
The Clinical Diagnosis of Early Schizophrenia, by Francis W. Graham		725	Obstetrics and Gynaecology	742	
Certain Aspects of Weight Gain in Pregnancy, by J. H. Bolton		727	Pædiatrics	742	
Poisoning due to Use of Carbon Tetrachloride, by D. O. Shiels		729	Orthopaedic Surgery	743	
Pancreatic Cysts, with Report of a Case Treated by Internal Drainage, by W. H. Neild		731	BRITISH MEDICAL ASSOCIATION—		
REPORTS OF CASES—			Queensland Branch: Annual Meeting	744	
A Suspected Case of Favism, by H. S. Moore	733		OUT OF THE PAST		
Erythroblastosis Fetalis due to O-A Incompatibility, by J. Grantley Shelton	734		CORRESPONDENCE—		
REVIEWS—			Australia and the Colombo Plan	754	
Skin Grafting	735		Systemic Lupus Erythematosus	754	
Clinical Obstetrics and Gynecology	735		Medical Ethics and Insurance Reports	754	
The Practice of Infectious Disease	736		Some Observations on the Management of Thyroid Disease	754	
The Tissues of the Body	736		DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA		
Foundations of Neuropsychiatry	736		NOTES AND NEWS		
Principles of Research in Biology and Medicine	736		POST-GRADUATE WORK—		
The Interference Microscope in Biological Research	737		The Post-Graduate Committee in Medicine in the University of Sydney		
Pediatric Surgery	737		NOTICE—		
Tracheotomy	737		The Children's Medical Research Foundation of N.S.W.		
The Chemistry and Chemotherapy of Tuberculosis	737		Australian Radiation Society: Victorian Branch		
Food for Better Performance	738		DEATHS		
Cardiac Problems for Chest Physicians	738		DIARY FOR THE MONTH		
BOOKS RECEIVED	738		MEDICAL APPOINTMENTS: IMPORTANT NOTICE		
LEADING ARTICLES—			EDITORIAL NOTICES		
Doctor Livingstone	739				

An Address.¹

SOME LESSONS OF MEDICINE.

By S. A. McDONNELL,
Brisbane.

TONIGHT I have had a very great honour conferred on me, and I am deeply appreciative of it; also, to me has been given a high responsibility of which I am very conscious. Looking back on my distinguished predecessors who have been presidents of the British Medical Association in Queensland, makes me anxious as to whether I, who have been but a "bush practitioner" in the broad acres of this far-flung country for the best part of forty years, am capable of continuing their wise and able work. Time alone will show, and I can but try.

I feel somewhat like that famous character of Rudyard Kipling, Mr. Tomlinson. You will remember that, after Mr. Tomlinson's death, he was interviewed by St. Peter at the Gates of Heaven. St. Peter decided that he was not good enough to be admitted and advised him to try the Nether Regions. At the Gates of Hell, Satan decided that

he was not bad enough, and, not wishing to give his place a bad name, also refused him admission. Of course, this left Mr. Tomlinson in an anomalous position. Now I feel that I am in a similar position. I am certain, through the exercise of my own Petralc judgement, that I am not good enough for this high position, but my colleagues who have placed me here, exercising their Satanic jurisdiction, have evidently decided that I am not 100% bad.

Usually one considers the effect that the practice of medicine has upon the sick and ailing. Tonight, for a brief period, I should like to consider the effects that the practice of medicine has, or should have, on the doctor himself. To have had a training in the science and art of medicine, to be in close contact with sick and suffering and worried humanity, in its many forms and phases, and to be a repository of the most intimate secrets of troubled and harassed minds, surely these, and various other factors, must teach the medical man many, many things. I shall not attempt to deal with all of these, but should like to consider a few.

Firstly, medicine should teach us humility. I do not mean that fawning type of humility, but the true humility that comes from an honest assessment of our own capabilities, knowledge and behaviour. William Cowper, in his poem "The Task", has written:

Knowledge is proud that he has learned so much;
Wisdom is humble that he knows no more.

The doctor, in his daily tasks, when all is said and done, acts only as a very junior partner in the old-established

¹The presidential address delivered at the annual meeting of the Queensland Branch of the British Medical Association on August 30, 1958.

firm of "Healing and Mending, Incorporated"—the senior partner, of course, being Mother Nature, and it is this senior partner to whom we look for dividends. Whatever we may do, by way of administering pills or potions, or by way of surgery, or by any other means of therapeutics, would all be in vain did we not have the assistance of the healing powers inherent in the human system—the so-called Mother Nature. Not even the simplest cut can we heal unaided. We only stitch it or support it in good position; the actual healing is performed by Nature. We must recognize our limitations and realize that we are, at our best, only helpers of Nature and, at our worst, hindrances. And when we consider that there are so many, many things, in connexion with the make-up and function of the human body and mind, about which we have only a smattering of knowledge, or are sublimely ignorant, surely we must see that medicine still has a long road to travel in the quest for knowledge. Especially is this manifest when we think of the two mysteries with which we are in daily contact—the mysteries of life and death, about which we know nothing.

Another factor that should make us humble is the courage we see at times in our patients in the presence of adversity. I think this could be best illustrated by an actual case. Many years ago, I can remember a nurse who married and came to live in my district. After some few years of happy life, her only two children died within a few days of each other. And, as though fate had not struck her a sufficiently hard blow, her husband died soon afterwards. I shall never forget the courage which that girl displayed as, with a sad little smile, she returned to her nursing work. A chapter in her book of life was finished. The wheel had come "full turn". She did not complain of her lot, but with a heart full of courage and faith set forth to piece together the fragments of her shattered life. When I thought of the trivial matters that I had complained about in my own life, I felt humble as never before. The incidence of similar cases is not uncommon in medical practice, and surely should teach us a salutary lesson.

Now I shall be accused of delivering a sermon more suitable for the pulpit. I must risk that accusation, otherwise I should omit what I consider is important. I beg to maintain that the practice of medicine teaches us a belief in a Supreme Being, irrespective of whether we are followers of orthodox, of unorthodox or of no recognized creeds. I would say that most medical men, from their knowledge of comparative anatomy alone, believe in some form of evolution—Darwinism or Neo-Darwinism, Lamarckism or Neo-Lamarckism, or any other form. This, of course, is not inconsistent with a belief in a Supreme Being. That great advocate of evolution, Charles Darwin, states in the concluding chapters of his epic work, "The Origin of Species":

There is a grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms, or into one, and that while this planet has gone cycling on, according to the fixed law of gravity, from so simple a beginning, endless forms most beautiful and most wonderful have been and are being evolved.

Surely the medical man who has studied the structure and function of the human body, who considers the incredible intricacies thereof, who realizes the remarkable chemical changes going on continually, the beautiful coordination of brain and eye and muscle, the delicacy and exquisite functioning of special sense organs, such as the eye and ear, and its other many and varied physical and mental powers—surely that man, also conscious that there are so many factors that we cannot grasp as yet and some that man will probably never understand, surely he cannot believe that this complicated organism we call man has arisen by blind chance from the ooze of bygone primordial oceans and developed into his present form, without there being a controlling Power, first to create and subsequently to direct, according to fixed laws. The pagan philosopher, Epictetus, has said:

Any one thing in the Creation is sufficient to demonstrate a Providence to an humble and grateful mind.

Not one of us, owing to our puny and limited intelligence, is capable of comprehending an all-powerful Being, who created and controls the undefined, apparently unlimited reaches of space, who has the power to create the smallest microorganism and also man, who has brought into being all the wonders of Nature that surround us and who has locked up in the atom that terrifying force that man has recently learnt to liberate by atomic fission. It is quite impossible for us to understand that there can exist a Being with such tremendous powers. Maybe, on some far-distant planet, there could be a race with a much more highly developed intelligence than we possess, and they may have some understanding of this great and wonderful power. Nevertheless, we, as students of medicine, should believe that it is so, while not understanding it.

Lastly, the practice of medicine teaches us to be sympathetic and tolerant to the weaknesses of mankind. Spinoza, the well-known Dutch philosopher, wrote:

I have honestly endeavoured not to laugh at the actions of men, nor to belittle them, nor to abhor them, but to understand them.

"To understand them"—that is important, because understanding begets tolerance, and tolerance is well on the way to forgiveness. Who has a better opportunity to understand the motives of men and women than the medical man? In his daily contacts he learns to know his patients intimately, and he is entrusted with their many and varied worries and troubles, domestic and otherwise. This understanding has taught me, as I am sure it must teach all similarly situated, that there are very few intrinsically bad people in a community. What may superficially appear to be reprehensible conduct in some can very often be explained away by circumstances which cannot be made public, but which can and often are poured into the sympathetic ear of a family doctor. Many examples of unsocial conduct are found to have extenuating circumstances. Also, it often so happens among people who have not had a good educational or environmental background, and whose heredity is not of the best. Their moral structure has not been sufficiently strong to stand up to the stresses and strains of life. In these cases, surely we must not blame, but must rather try to understand and be tolerant and sympathetically helpful.

To us medical men is given the opportunity to practise this, more so than to most men.

In conclusion, I should like to quote from the writings of that great physician and master of prose, Sir William Osler. In his "Æquanimity" he points out to us doctors that we are given the task of illustrating with our lives, among other Hippocratic standards, those of humanity and probity, and I quote:

... a humanity that will show in your daily life tenderness and consideration to the weak, infinite pity to the suffering, and broad charity to all. ... a probity that will make you under all circumstances true to yourselves, true to your high calling, and true to your fellow man.

THE EARLY SYMPTOMS OF THE PSYCHOSES IN GENERAL PRACTICE.

By E. CUNNINGHAM DAX,

Chairman, Mental Hygiene Authority, Victoria.

In their book "Psychiatry in General Practice" Watt and Watt wisely point out that although the specialist has advantages over the general practitioner in most branches of medicine, in psychiatry this is reversed, because the general practitioner lives amongst his patients; he thus has a more accurate norm for comparison, and, moreover, he knows his patients' backgrounds. General practitioners form the largest branch of the profession; they are the closest to the families and therefore they see the earliest stages of nearly all the diseases. The patients sent on to the specialists for advice and to the teaching

hospitals for admission are mostly those with diseases incurable by ordinary means, remarkable by their rarity, or sometimes those whose relatives are in the greatest need of reassurance. Much the same has applied to psychiatry as to medicine and surgery. Florid psychotics have been used for teaching purposes. The psychiatrists in institutions in the past had little knowledge of the neuroses as they had not worked in out-patient departments; although consultant psychiatrists had some special knowledge of the complicated neuroses they lacked the opportunity to study and treat psychotics as in-patients. In this way the teaching of the students has been divorced from their clinical requirements, but this has not mattered much because in any case very little room has been found in the medical curriculum for the required psychiatric training. In consequence, although Australia has one of the best general practitioner services in the world, which deals with many of the surgical, obstetrical and medical emergencies, the only solution to many of the acute psychiatric problems has been certification. The psychoses are not very common in practice, and form the lesser part of the total psychiatric material seen, but the difficulties they cause are often out of all proportion to their frequency.

From a number of sources I have tried to collect the figures referring to a practice dealing with 2000 people. It appears that although 25% to 35% of the total attendances in the practice will be of a psychiatric nature, most will be for neuroses presenting with physical symptoms. Only about 15 new psychotics will be seen each year, of whom three or four are likely to enter a mental hospital. Thus, at any one time, up to 100 of the total people in the practice will have been patients in a mental hospital with a psychosis, though most of them will have recovered. A number more will be treated as in-patients by those in private consulting practice. About seven of these 2000 people will always be in a mental hospital as long-stay patients. A suicide is to be expected in the practice every two or three years, and perhaps two attempts or major demonstrations will occur each year.

It is difficult to believe that this is the whole story. There seems to be little doubt that the severe depressions are the commonest psychoses seen in general practice, but a distinction is not or cannot always be made between the true melancholias (or psychotic depressions) and those depressions superimposed on a neurotic background (mostly anxiety states). But these cases are straightforward compared to those ill-described and ill-defined psychotic episodes which are noted in general practice, and although they are often mentioned one is rarely fortunate enough to meet them. As examples, there are the confusional states without obvious physical causation, the transitory schizophrenic reactions in adolescence, the hypertensive and arteriosclerotic crises and the toxic disturbances associated with drugs, diet and physical illnesses.

Before discussing the early symptoms of some of the commoner psychoses in more detail, certain general observations would seem to be of use. Since every general practitioner knows the families well, he intuitively anticipates the stress reactions of all his patients whether they are mental, physical or more probably both. For instance, take the case of Mr. A. He is the son of Mrs. A., who has always fussed over him, and brought him for medical advice at the least sign of disorder. He has been a strange looking boy, thin, tall, flat-chested, long-fingered and soft skinned, a shy youth, but he plays the violin fairly well. At one time he was rather run down and apt to be chesty; he had an X-ray examination several times, because he was the sort of boy who was potentially tubercular. He is quite bright, but did not mix well at school, left early, and after a severe cold became rather silent and shut away. He recovered after a few weeks with a tonic, and has been doing quite well working on his own in an advertising business assisting a commercial artist, but he does not mix much with the others and gets a little suspicious and takes offence rather easily. His only exercise is bicycle riding, which he does alone, and he collects insects. He is not interested in girls, even though he is 19 years old now; he has lived alone with his mother since his father died. In attempting to keep

his weight up, the mother has always tried to feed him to the point of irritating him. He needs an eye kept on him in winter as his circulation is poor and he easily gets a cough. Then when anything goes wrong he is inclined to be moody, shut away and difficult, though sometimes he has quite irrational outbursts of temper. He is still immature, and if he is not carefully tided over the next few years and cannot find outside interests, there seems to be a real possibility of a full-blown schizophrenic psychosis developing. This, of course, is the old story of constitution, diathesis, personality, body build and temperament, heredity and environment, which are all of importance in the assessment of a person's predisposition to a certain type of psychosis and also to its prognosis. Thus a physically healthy person with an average build, a good mental heredity and a degree of emotional maturity, who breaks down under definite environmental stress will have a better prognosis than one with marked abnormalities in any of these fields.

Mistakes in the recognition of the psychoses arise particularly from believing that a symptom is an illness. For instance, anxiety is not infrequently very marked in hypertensive and cardiac disturbances, involuntional and other forms of depression and sometimes in schizophrenia, as well as in the anxiety neuroses. Similarly, depression may be found in many conditions, neurotic, psychotic and physical. When general paralysis was common it was not infrequently mistaken for melancholia in women, whilst depression in an older person may often be the first sign of severe arteriosclerotic changes; moreover, an attempt must always be made to distinguish true melancholia from the neurotic disorders with an overlying depression.

The early signs of a psychosis are not uncommonly attributable to an organic disease. For this reason one should never fail to inquire as to what drugs have recently been taken. Bromide intoxication used to be particularly common in the elderly, and occasional cases still arise from the drugs which can be bought without a medical prescription. Other cases of confusion in the elderly have arisen when sulphonamides have caused a shortage of the vitamin B complex. So in these and other conditions in which there is a clouding of consciousness particular care must be taken to look for loss of weight and a glazed tongue, especially at the tip. In the same way the fundi must always be examined, as the changes due to tumours may easily be confused with other conditions. Similarly, the blood pressure should always be taken, and the urine examined. The skin, face and eyebrows must be especially observed in middle-aged women, particularly those with retardation and delusions, for myxoedema is sometimes responsible for these symptoms. Lastly, general paralysis, rare as it is becoming, should always be kept in mind as a differential diagnosis. It is clear that a complete physical examination will have been made, but it has not always been very recent; and whilst it is not suggested that these cursory observations are in any way a substitute for a complete examination they are at least valuable as special features to be noted.

In dealing with the early symptoms of the psychoses, I have chosen melancholia, schizophrenia, the psychoses associated with the cardio-vascular diseases and the psychoses associated with old age.

Melancholia.

Melancholia is no longer a popular term, but it has the advantage of a definite, though limited, meaning, and can conveniently be dealt with as an entity in the description of its early symptoms. It is far commoner than mania, and most of the milder cases are satisfactorily dealt with in practice without recourse to in-patient treatment. Its incidence is probably about three per thousand of the population, and it is said to be about as frequent as the heart conditions in practice. Its importance arises not only from its numbers but also because of the frequency of its termination in suicide, and very rarely in the murder of spouse or children beforehand. Deaths by suicide are probably nearly as frequent as those caused by road accidents.

There are few melancholics without the thought of death or suicide. Some will say that they could not do anything to themselves because it would be wicked, others that they would not have the courage, or that it would reflect on their family and children. Another stage is that of passive suicidal thoughts, when people wish they could die in their sleep, be found dead or even killed. The more actively suicidal will usually acknowledge their wish to kill themselves and often describe with some details how they have tried or thought about it. These patients who are actively suicidal need not be the most depressed, and in fact many suicides have occurred either early in the illness or on recovery from the deepest period of depression. One must always beware of the man who is in tears and nods or answers in monosyllabic affirmatives when one asks him about suicide, or the tense resentful woman who refuses to give any assurances.

Yellowlees once stated that if a melancholic patient promised he would not commit suicide without telling you first he would keep his word. Many people have believed this to be naïve, yet I have never known it to fail, though in fact I remember being contacted on only one or two occasions. The basis of this agreement is that the melancholic has much greater feelings of guilt than other people, and that his sense of honesty is consequently higher. It also has to be remembered that the relative suicidal rate is greater in patients over the age of 60 years.

Murders occasionally occur, sometimes because the psychotic depressed woman feels that she has done so much harm to her children by her wickedness that they have nothing to live for, or the man feels he has irreparably wronged his wife and children. Suicide often follows, but sometimes the murder so shocks the patient that he or she will surrender to the police or telephone to a doctor to save the victim. Many people take alcohol before making a suicidal attempt, but one must always beware of attributing the action to drunkenness. It has also to be remembered that a woman having homicidal thoughts after one childbirth sometimes has the same on succeeding occasions, even though she has been quite well in the meantime. These patients usually have a history of being ill for a long time, and numerically are not very many. But the newspaper descriptions of them occur with sufficient frequency to make it worthwhile stressing that if a melancholic woman has thoughts of her children being disgraced for life by her conduct, or a depressed husband the idea that his wife will be permanently injured by his wickedness, then immediate action should be taken to ensure that he or she receives treatment.

The melancholic sometimes consults his practitioner for reasons other than his depression. He may complain of pains in his chest, indigestion or urogenital symptoms. He comes for advice without enthusiasm or interest in his illness, and has a blankness in his approach and an air of disillusionment. He gives the feeling that the doctor has done his best, but the remedy cannot do much good anyway. Although the melancholic does not usually believe that his physical disorders are the cause of his depression he may, nevertheless, constantly repeat his complaints.

This loss of interest and change of habits is characteristic of depression. The enthusiastic bowler gives the game up, he can no longer go to the pictures, he is not keen on his work, he avoids his friends and feels insufficient and inadequate. The woman finds difficulty in getting through the housework, becomes untidy and may stop using make-up, but in spite of her other limitations she will often continue to look after her children nearly as well as ever, though as a duty rather than a pleasure. She will tell of her uphill task to do her housework and of fighting a losing battle in getting it finished. In part this is a measure of her retardation and in part of her feeling of inadequacy. Such feelings not infrequently occur for a while after a woman's return home after childbirth, but they usually pass off as she learns to manage her family, new baby and well-meaning relatives.

Sleep is nearly always disturbed. These patients with endogenous or psychotic depression get off to sleep, wake early and cannot sleep again. They turn over their troubles, and by the time they get up they are in the

depths of despair. This sleep disturbance, in association with other undefined complaints, should put the doctor on guard.

Often it seems that the melancholics feel so wretched and so deeply miserable that they have to find reasons for their feelings. They comb through their past lives, and thoughts of guilt and unworthiness may then be repeated. More often in the early stages of their illness they may say that they feel as if they have done something awful and do not know what it is. They worry unduly about their family, home and financial affairs, and at a later stage this leads to delusions of poverty and ruin. Sometimes, particularly in the older age groups, there is much more anxiety in the early stages instead of this tendency to retardation; this leads on to agitation and preoccupation with physical ill health and thoughts or delusions of incurable disease. In these cases the patients have often been rigid, moral, over-tidy people, and they become, as might be expected, obsessed by fears of dirt.

Relative impotence and loss of sexual interest are common in the male, even in the earliest stages of the illness, and amenorrhoea often occurs in the female.

In the early cases of psychotic depression much useful information can be obtained from the relatives in regard to such matters as the person's change in habits, his loss of appetite and weight, diminished personal care and insomnia. The early symptoms of melancholia may show themselves in ways which are apparently unrelated to the cause. A chance and unexpected remark will reveal feelings of guilt or inadequacy; some action or observation will show how desperately hard the patient is struggling to keep up a job or a home, despite the handicaps against him.

Psychotic depression is a justified and proper occasion for the use of electroplexy (electro-convulsive therapy) if the condition does not clear within a few weeks with occupation, relaxation, sedation at night and amphetamine in the mornings. Agitation, family difficulties, fear of losing employment and signs of possible suicide are all reasons why the treatment should not be withheld providing the diagnosis is clear. But there are many cases in which the depression does not seem severe enough to insist on the patient's treatment, and yet the condition gives rise to anxiety and doubt in the doctor's mind. It is better never to delay too long, and these patients make ideal subjects for voluntary treatment in a psychiatric hospital or early treatment centre. Moreover, in the appropriate cases, treatment with electroplexy gives excellent results.

Schizophrenia.

Schizophrenia has had more written about it than the other psychoses, because more hospital beds are occupied by schizophrenic patients than those suffering from any other condition, mental or physical. This is not due to the frequency of the disease, but to its poor prognosis for recovery, although it does not greatly diminish the span of life.

The majority of cases of schizophrenia occur in patients in the twenties, but some of those children who in the past were thought to be mental defectives are now known to be deteriorating cases of juvenile schizophrenia. A number of breakdowns occur in adolescence, and indeed it often seems that many of these patients fail satisfactorily to pass puberty. In adolescence there is often difficulty in diagnosing schizophrenia because, as Henry Wilson pointed out, many of the adolescent disturbances closely resemble schizophrenic illnesses.

I have the impression that schizophrenia has changed over the past twenty-five years. It is rare to see patients with catatonic stupor or others with the classical textbook signs of disease. Similarly, the giggling, silly, hebephrenic girl is no longer as often seen as previously. Perhaps this is because the disease is diagnosed and the person sent for treatment at an earlier stage than before, and that relatives are more willing for the patients to enter hospital. But I doubt if this is the whole explanation.

Most of the early symptoms of schizophrenia can be described on the basis of (a) introversion, (b) ambivalence

and (c) failure in communication. In other words, (a) the schizophrenic patient progressively lives within himself, (b) he adjusts to stress unsatisfactorily as he does not know his own mind, and (c) he cannot explain his feelings to others.

Let me examine these points in more detail and try to fit some of the commoner early symptoms into these categories.

Introversion.

The first evidence of introversion is that the young person becomes more solitary and withdrawn, parting from the few friends he possesses. He has a loss of warmth and affection, and his relations complain that they cannot get near him, that there is a gap between them and a strange separation which they cannot explain. This is due to a schizophrenic apathy or emotional indifference. Often the attack will seem to follow a broken engagement, a failure in an examination or some other disappointment, but on careful inquiry it is usually found that the event has occurred as the result of the illness rather than the stress having caused it. His interests are narrowed, but often change to the abstract so that he may be absorbed in philosophy and metaphysics. He tends to day-dream with fantasy formation, and some blocking of his thoughts is evident so that he cannot complete his sentences. He has less regard for others and less of a sense of social responsibility. As he becomes self-absorbed it is natural that in many cases there should be some hypochondriacal preoccupation with bodily functions. Many schizophrenics have a body image disturbance, feeling they have changed in their appearance and will look at themselves or grime in a mirror, or feel people are staring at them. Insomnia is common in these patients; sometimes they are troubled with weird dreams and strange feelings and are tortured by irrational fears. In recent years earlier cases of the disease have been recognized. Especially interesting are the patients who seem to have a psychoneurosis, but who exhibit numerous atypical symptoms, lack the usual self interest and are without the depth of feeling which is to be expected. They tend to regress slowly and react poorly to treatment. This tendency to introversion is accompanied by a resistance to change and there may be instability, intolerance and even aggression.

Ambivalence.

Ambivalence, or the coincidental appearance of a positive and negative emotional feeling to the same object, is characteristic of schizophrenia, and results in illogical, irrelevant and incongruous behaviour. The patient's mood does not seem to agree with his thoughts, and a disorganization or jumbling of his thinking processes occurs. This fragmentation or breaking up of thought, so that one idea does not belong to another, is particularly well shown in some of the paintings of even the very early schizophrenic patients. I saw an art student's completely normal paintings a week before the commencement of her illness; the day before she broke down she drew horses in a field, which though also normal at a first glance showed shields with coats of arms hidden in the grass. A few days later she was painting dismembered bodies and weird creatures, each of which seemed to be drawn separately and to be unrelated to the other subjects in the paintings.

Failure in Communication.

The third feature, the disturbance in communication, results in a change in verbal expression, magic thinking, changed meanings, weird dreams, signs, grimaces and gestures. The schizophrenic seems to turn to a more primitive means of expression, and lives in a world of dreams and fantasies. As time goes on it becomes difficult for the schizophrenic to distinguish these fantasies from fact. He thinks people are looking at him and talking about him; he attributes his feelings to others and blames them for his own shortcomings.

To summarize, the schizophrenics are usually young people, secretive, strange, odd and withdrawn. They often show an insidious change, becoming shut away, distant, apathetic, lazy, lacking in warmth and affection.

They resist change and interference, and tend to lose contact with reality. Their thoughts and moods do not seem to harmonize, they have mixed feelings and exhibit illogical conduct, and so they are unpredictable in their behaviour. They turn to more primitive means of communication with mannerisms and fantasies.

Schizophrenia is a difficult disease to describe. For the purposes of family practice the doctor often wants to recognize the condition by a cluster of three or four characteristic symptoms, and to know the usual means of dealing with the case in an equally cut and dried way. The very fact that most cases of schizophrenia cannot be recognized in this way, but have a vaguer and more indefinite symptomatology, is in itself enough to suggest the presence of this condition. To watch the progress of the disorder over a week or two with the aid of sedatives or tranquillizers, of which the most useful for this purpose are chlorpromazine and its derivatives, is essential in many cases for establishing the diagnosis and deciding upon the further treatment. Once the disease is definitely established, treatment of the schizophrenic should, in general, be by insulin comas and particularly if this can be given in the early stages. The remissions are mostly better and quicker by this means, but there is no certain evidence that it causes a large increase in the ultimate recovery rate, which in established cases is poor compared to many other illnesses.

The Cardio-Vascular Disorders.

Cerebral arteriosclerosis, hypertension and cardiac decompensation all have important implications in the psychiatric side of general practice. Although not usually giving rise to psychoses in the true sense, so many psychotic symptoms may be shown that this would seem a useful place for their inclusion.

Cerebral Arteriosclerosis.

Cerebral arteriosclerosis is often first recognized by an associated depression, which is sometimes accompanied by a certain blankness of expression and poverty of thought. In acute cases of depression it may only be recognized or suspected when the patient has become confused after electroplexy. Other patients are first seen with a change in their personality, as if they were a caricature of their former selves, and they display a loss of memory for recent events. About half of them have attacks of confusion, and these may be particularly obvious on first waking up, when they are often disorientated for a few minutes. These people often have good insight and recognize their own mental failures. It is interesting that their judgement is therefore less impaired than is expected. Very frequently they show signs of emotional instability, and often weep or laugh incontinently at what they read in their newspapers. Some become irritable and demanding, suspicious and jealous. Clouding of consciousness appears and is often related to mild infections. Neurological signs are more obvious if the larger vessels are involved, whereas the mental changes are often related to the involvement of the smaller vessels. Neurological signs, a fluctuation of the symptoms, attacks of confusion which clear and a more patchy as well as a rather lighter intellectual impairment in the arteriosclerotic conditions tend to distinguish them from the senile deteriorations. Large doses of nicotinic acid (not nicotinamide) after meals and thiamine are worth trying. Paraldehyde can be used with advantage to tide such a patient over a crisis, giving two drachms at first and then one drachm every four hours, if this will produce continuous drowsiness.

The hypertensive patients frequently exhibit anxiety symptoms, nocturnal restlessness and frightening dreams of a kind which may be confused with those of an acute anxiety neurosis. About 60% of patients with essential hypertension are said to exhibit mental changes. Roughly half of these show clouding of consciousness, and half show variable changes such as slow cerebration, tension (or tortured self concern), personality changes and varying degrees of dementia. These depend on the cerebral damage, which is often associated with focal areas of softening in the brain. True hypertensive encephalopathy with its

acute neurological signs is rare, but crises of varying degrees of severity are not uncommon, and these patients need careful but often rewarding treatment to clear their mental state. Nevertheless, the residual impairment tends to increase with each attack. This impairment shows itself by a decline in performance, which is often a source of worry to the patient and increases his hypochondriacal preoccupation. For what it is worth, it is said that patients with hypertension show more neurotic-like personality changes than those with cerebral arteriosclerosis. Additionally, the fluctuation in symptoms, the decline after successive attacks and the memory loss is more frequently seen in the arteriosclerotics. The value of such a distinction is that treatment has a better effect on hypertensive than on arteriosclerotic psychiatric patients.

Cardiac Insufficiency.

Cardiac insufficiency is often associated with anxiety and apprehension, but it is important to know of the frankly psychotic symptoms which sometimes appear. At one time I had no less than five patients in a small observation hospital who were suspicious, deluded, hallucinated and showed other paranoid features which disappeared in all but one with improvement of their cardiac condition. A good deal of anxiety and hypochondriasis is often engendered by giving too gloomy a prognosis in cardiac decompensation and by severely altering a person's habits and life pattern. It has always to be remembered that an extra load thrown on the patient's heart by worrying about himself and his affairs may be sufficient to shift the balance into decompensation. Perhaps the psychiatric symptomatology is not always given the prominence it might have in judging the success or otherwise of the rest of the treatment.

The Early Symptoms of the Psychoses of Old Age.

Of persons aged 65 years and over who present with psychotic symptoms, about half will be found to have a history of previous psychiatric illness. It is important that the aged patient should not be labelled senile and dealt with as such, but rather that his illness should be classified as of (a) the affective type, (b) the confusional type, (c) the paranoid type, or (d) the dementing type. The need for treatment and its effects vary considerably in the different categories. (a) Melancholia in the elderly is frequently associated with anxiety and hypochondriasis. There is a repetitive element in the complaints, which are often accompanied by restlessness and insomnia, especially in the early hours of the morning. There should be no fear of advising admission to hospital of these patients, as the results of electroplexy are very good even in the very old. Moreover, it has to be remembered that on a proportionate basis there are more suicides in the old than in any other age group, particularly in those who are isolated and unmarried. (b) The mortality in confusional states in the aged is high, and there is considerable evidence that the acute psychoses of old age are evidence of a general and not merely a psychiatric disintegration. They are particularly common in association with inefficient renal function. These delirious states are usually very acute in character, and often occur after an operation or some sudden environmental change. (c) Old people often become suspicious, particularly when they are deaf or their eyesight is failing. They may feel they are unwanted, and people are plotting against them to get rid of them, that their relatives want them to die so they can get their money or that they will be turned out of their accommodation and put in a home. Often there is an element of truth in these fears, and there is some foundation for the insecurity. It is difficult at any stage in life to draw the line between the disbelieving, suspicious, hostile, bitter, belittling personality and one with a developing paranoid illness. The decision to deal with the aged paranoid must largely be on a social basis. If the person is deluded, hallucinated, abusive and even violent to neighbours or relatives or if she believes that people are making sexual approaches to her, admission to a mental hospital may be necessary. There is little to be gained by early treatment, unless the person is also depressed, when the prognosis is better. The decision has to be made as

to how long the patient can be kept out of hospital rather than what are the early signs to indicate the need for treatment. (d) The dementing type of illness in the aged is one in which the changes normally found in aging are exaggerated—where the process of growing old takes place so quickly that the person concerned reaches a degree of deterioration in a few years which most people never reach before death. The interests contract, there is marked egocentricity, hypochondriasis, resistance to change, hoarding of possessions, insecurity, suspiciousness and intolerance. There is loss of energy, retardation, diminished affection, carelessness in personal appearance and in cleanliness and failure to take care of themselves. Thus, they may be in danger in traffic, lose their way, constantly leave the gas or electric iron on or the water running. They lose their memory, particularly for recent events, and because they are partially aware of their failures they tend to become solitary.

It has to be remembered that the changes can be delayed by adequate social services; but sometimes in the first place the old people have almost to be forced away from life by themselves to clubs or day hospitals, prevented from shutting themselves away, or taking themselves to bed, for contractures and incontinence soon follow. It is much better that the patients with early signs of deterioration should be kept at home, and given aid through social and psychiatric community services, rather than moved to a home or hospital, where there is often a much greater mortality, and in many instances a more rapid and progressive deterioration. It usually helps the relatives to be taught about the psychological effects of aging, and how to counteract them. They will often deal better with an old person in an objective way rather than becoming emotionally involved, particularly if he or she is suspicious and self-centred and shows less affection than before.

Summary.

An account is given of the early symptoms of melancholia, schizophrenia, some cardio-vascular conditions and the psychoses of old age, especially in regard to the needs in certain patients for early treatment.

Acknowledgement.

I would like to thank those in general practice who so very kindly have given me their help and good advice.

EARLY MANIFESTATIONS OF SCHIZOPHRENIA.¹

By W. H. TRETHOWAN,

Department of Psychiatry, University of Sydney.

BLEULER (1950) observed that the differentiation of the earliest symptoms of schizophrenia from "original" peculiarities of character, which may have existed from the beginning, "makes for unsurmountable difficulties". This applies not only to doctors on whom the onus of correct diagnosis falls, but also to a patient's relatives and friends, who may have grown so accustomed to living with one always observed to be somewhat strange and different from others that they may, for a long time, fail to notice any actual deterioration or subtle alteration for the worse of the patient's oddity and aloofness. Even those cases which appear to start acutely and which do not give rise to diagnostic difficulty often prove, on careful retrospective investigation, to have begun insidiously some time before. It is, perhaps, during adolescence that diagnosis presents the greatest difficulty. As is well known, this is a time of vacillation and unpredictability, and is frequently accompanied by a period during which the adolescent becomes more seclusive, suspicious and apprehensive of the feelings and attitudes of others. Such a phase bears some resemblance to an early schizophrenic development, though for the most part it is transient and benign. However, because the schizophrenic is incompletely equipped to cross

¹ Condensed from a talk given at Sydney Hospital on April 23, 1958.

the bridge between childhood and maturity (Wilson, 1951), it is found that adolescence is the period when the disorder often makes its first appearance. Some 75% of schizophrenic illnesses begin, in fact, in patients between the ages of 15 and 30 years, and, as a rule, earlier within these limits than later.

The basic manifestation of schizophrenia is a disturbance of ego function which, if unchecked, leads ultimately to disorganization and to chronic personality disintegration. The more familiar symptoms of the disease appear to be secondary and, it is said, can be viewed as an outcome of disorder in the dynamics and economics of ego activity (Freeman *et alii*, 1957). Schizophrenic disturbances of ego function can best be understood in relation to the development of the normally functioning ego. A failure of ego organization permits, among other things, the emergence of primitive instinctual drives and archaic infantile modes of thought, which may be reflected in schizophrenic symptomatology and behaviour.

In terms of development, the process of organization towards the reality concept begins in infancy and leads through various stages to a gradual appreciation of self as opposed to the non-self. On this basis ego-consciousness as opposed to object-consciousness evolves. The normal sense of personality may be considered to be compounded not only of an awareness of psychic unity, but also of an awareness of all those indefinite organic sensations which form a definite, if normally unobtrusive, part of consciousness at any given moment. These combined with memory give a feeling of continuity and a link with what is past. This so-called "empirical ego" is something which involves each individual as a totality. Through it past is linked with present, and individual memories have a feeling of familiarity which those of others do not have. In addition, the normal fading and loss of old memories as compared with those more recent contribute to a sense of the passage of time. The origin of the ego and the origin of the sense of reality are two aspects of one developmental stage. This is inherent in the definition of the ego as that part of the mind which handles reality. The concept of reality also creates the concept of self, and we become individuals inasmuch as we come to feel ourselves separate and distinct from others, and from the world around (Anderson).

One may pass from this to consider some characteristic schizophrenic disturbances of ego identity. One is a sense of loss of continuity with the former self; another is a weakening of ego boundaries, which may lead the schizophrenic patient to identify himself with objects in the outer world, even to the extent of seeming to experience the experiences of others. This weakening of ego boundaries leads to a disturbance of figure-ground relationships, well exemplified by a common aspect of schizophrenic art, in which figures are portrayed whose elongated limbs or other bodily parts flow surrealistically into the background. Similar experiences occur in states of drug intoxication, particularly that produced by lysergic acid diethylamide. Here a not uncommon subjective experience is a sensation of dissolution of the body surface with a feeling of being transformed into a disembodied mind. In practice, schizophrenic ego disturbances, which in milder cases may not be so complete, are not often expressed by the patient in such terms, though this is sometimes the case. More commonly the expression is in the form of some kind of hypochondriasis which, as will be seen, is a frequent and early manifestation of schizophrenia, but which is often erroneously regarded as being of neurotic origin.

Clinical Material.

In the preparation of this paper a retrospective examination of the case histories of 76 schizophrenic patients (49 males, 27 females) was carried out. Almost half as many again were excluded, because the records available were insufficiently clear in their description of the symptoms of onset. Others rejected were those with a history of a previous attack necessitating admission to hospital elsewhere, and a few in whose cases there was some doubt in regard to exact diagnosis. The ages of the patients on their first admission to hospital ranged from 15 to 45 years, but, as the average was 23 years (standard

deviation = 6.5), most were on the young side. These cases are, of course, a selected group in the sense that most were relatively mild, and therefore the patients were admitted to a psychiatric clinic (Broughton Hall Hospital) rather than certified and sent to a mental hospital—the fate of most patients with acute florid schizophrenia. However, they are a group of particular interest as they, for the most part, represent those cases which give rise to the greatest diagnostic difficulty in practice.

The Onset.

In only four patients did the onset of the illness appear to be acute. In 20 it was so insidious as to make it virtually impossible to determine exactly when the illness began, while in the remaining 52 patients the onset could be said to vary from somewhat insidious to subacute. Only the four acutely ill patients had apparently been ill for less than a month. Of the others, 10 had been ill for between two and six months, while in 45 (that is in over 50%) the illness had been in progress for at least six months, often very much longer, before their first admission to hospital. In no less than six of these the duration of the illness clearly exceeded five years—in two probably over ten years. In 17 cases the duration of the illness, while obviously of some considerable length, could not be adequately determined.

The Symptoms.

The most frequently occurring early symptoms were those which could be classified under the heading of hypochondriasis. Leaving aside disturbances of sexuality, somatic symptoms of one kind or another were complained of by 38 patients. These included such things as worrying over queer bodily feelings, somatic expressions of sensations of depersonalization, and less frequently more specific symptoms such as headaches or various kinds of abdominal discomfort. Excessive fatigability of neuroathenic type is also included under this heading. Many of these symptoms have a neurotic quality, and were initially mistaken for symptoms of neurosis. This gives some foundation for the conception of pseudo-neurotic schizophrenia (Hoch and Polatin, 1949), which form is probably one of the most common modes of onset of the disorder.

Disturbed sexuality occurred in 27 patients, and included such things as an overwhelming preoccupation with sexual matters, a feeling of changing sexuality giving rise in some cases to frank homosexual behaviour, to excessive masturbation and occasionally to other sexual deviations as well. Although anomalous sexual behaviour, which is extremely common in the early stages of schizophrenia, is often mistakenly thought to be a cause of this complaint, there is much more reason to believe that its occurrence can be explained in disturbance of ego function occurring specifically in relation to sexuality. Of especial interest is confusion of sexual identity, a by no means uncommon early symptom of diagnostic importance (McAlpine and Hunter, 1955). This may explain a sudden indulgence in homosexual behaviour or transvestism in individuals in whom such tendencies have not previously been overt.

The emotionality of schizophrenic patients deserves special consideration. Although, as is well known, there tends to be a progressive and considerable flattening of affective response, this, when present to a marked degree, is of relatively late occurrence, and in some, particularly those schizophrenics developing the disorder for the first time in later life, does not occur at all. In contradistinction to this there was in 24 patients evidence of some increase in emotionality in the early stages, either in the direction of agitation, anxiety or irritability or of sudden outbursts of rage, aggression and hostility to the point of physical assault.

In some of these patients and in others (40 in all) there was, with the progress of the disease, a very gradual and insidious loss of interest and increasing apathy, resulting in a withdrawal of contact with others, increasing seclusiveness and social inadequacy. This, of course, is very characteristic, although difficult to spot in the very

early stages. However, one is familiar with the schizophrenic adolescent who gradually loses contact with his friends, shows increasing apathy towards members of his family, and exhibits slow but inevitable deterioration in personal hygiene and in the cultivation of intellectual and other interests.

Schizophrenic apathy is often mistaken for, and indeed on superficial observation may resemble, depression. Apart from this, frank depression to some degree is by no means uncommon, and occurred in 27 of the patients under scrutiny. Eleven of these were depressed enough to develop ideas of suicide or to make actual attempts. One other committed an act of self-mutilation, probably basically carried out with suicidal intent. The onset of depression in an adolescent or young adult, particularly depression with a quality of apathy, should always arouse suspicion of schizophrenia, although primary endogenous depression of other kinds, e.g. manic-depressive depression, does sometimes occur during adolescence and even more rarely in young children. However, as a rule primary depressive states do not make their appearance until full maturity has been attained, and are even more prone to occur during middle age and later life. The onset of depression in a schizophrenic patient may give rise to difficulty by masking the true nature of the illness. Thus, it is not uncommon to see young depressed patients who have been treated with electro-convulsive therapy, in whom the depression has lifted, but who, instead of recovering, now exhibit frank schizophrenic symptoms. As a variant of this a schizophrenic patient may, at the beginning of his illness, show a mood change in the direction of euphoria, even to the extent of frank elation and with accompanying grandiosity. This is extremely uncommon in the early stages, though less so as a later development. It is, of course, possible, in those patients showing manic symptoms and in some who become depressed, that there is a genetic link between both manic-depressive disorder and schizophrenia, both occurring in one and the same person, and the one possibly potentiating the other. The rather unsatisfactory concept of schizo-affective disorder is sometimes used to designate such cases.

Of all affective changes, insidious apathy is probably the most common. As stated, the early recognition of this may be difficult. However, the experienced interviewer often develops a subjective feeling while interviewing these patients, which has been compared not inappropriately with a feeling as if a pane of glass were interposed between the patient and himself. Put another way, a certain interference with affective rapport is felt, which is both intangible and inexplicable in other terms. This in the course of time may develop considerably, giving rise to a characteristic difficulty in communication, or occasionally to a feeling of marked though impersonal hostility or coldness which flows from patient to examiner.

Gross thought disorder is seldom apparent in the very early stages, though may be striking in those patients in whom the onset of the illness has been relatively acute. More often the patient can carry out a fairly rational conversation, with at the same time a noticeable degree of vagueness and wooliness, particularly of conceptual thinking. This results in a tendency to talk in generalizations with a corresponding failure to give specific examples when pressed. Similarly, and in parallel with this, it may be observed that in endeavouring to give a history or description of himself, the schizophrenic patient exhibits a tendency not to come to the point, but to bypass this or talk round the point. Interruption by a direct question, put specifically to qualify a vague issue which has been raised, fails to accomplish this satisfactorily. Even if thought disorder is not grossly overt, schizophrenic patients often complain of poor concentration and apparent memory loss, though on formal testing no intellectual impairment of organic kind is demonstrable. Some also appear perplexed, confused and bewildered, not only because they cannot control their thinking, or because they feel that this has gone awry, but also as a result of disturbance of the awareness of the self and its relation to the environment. Some degree of thought disorder of these kinds was present in 41 of the patients under review, apparently in the early stages.

Motor disturbances are not uncommon, and may take the form of frank catatonic symptoms, which may be of acute onset. These are usually easily recognized. However, it needs emphasis that minor catatonic symptoms, often of a slight and transient kind, are much more common than the full-blown catatonic state, which is rarer and often a later development. The gait of many schizophrenic patients is characteristic inasmuch as a certain degree of awkwardness or gracelessness may be evident. In all of his movements the patient may have an appearance somewhat akin to that of a robot or automaton. This may be present to a very minor degree, but its significance should not escape notice. Associated with this and probably with the thought disorder, disturbances of speech are often present. These may take the form of reduced output of speech, occasionally to the point of muteness and sometimes of an acquired stuttering or jerkiness of speech. Complete muteness is uncommon in the early stages, though may be an initial symptom of schizophrenia in the young child.

Frank paranoid symptoms do not usually occur early in schizophrenia, although in more acute cases delusions and sometimes hallucinations may be present almost from the start. More often the patient seems gradually to become suspicious, and begins to see a new significance in outside events, which in actual fact have no concern with him whatsoever. Thus a chance remark overheard, an expression on a stranger's face, the manner of greeting of a friend and a multitude of other quite harmless and insignificant events may assume a new meaning in the patient's mind. He begins to feel that in some way he is being "got at" or tormented. This again is related to the ego disturbance, which gives rise in the patient to a feeling of passivity towards the environment, so that he starts to feel affected in a strange way by outside influences of many different kinds.

Extremely characteristic and diagnostic of early schizophrenia is the so-called primary autochthonous delusional state, which precedes the emergence of fully fledged delusions. This, though often described in retrospect, is relatively infrequently observed in a state of emergence. While in this delusional mood the patient is painfully troubled by a sense of something amiss which he cannot formulate clearly, a vague sense that something eerie, uncanny or sinister is at hand. Although the environment remains objectively unchanged it seems all at once that a fresh significance underlies everything. The delusional mood is not a mood in the ordinary sense, that is a simple affective matter of feelings and emotions, but a feeling of instability and insecurity, which drives the patient to seek a fixed point of reference to which he can cling. He evolves, therefore, a concept to explain his feelings, exactly as a normal person might do in analogous circumstances. The primary delusional experience consists, therefore, of seeing a new, but not understood, meaning in events, something lying below the surface; the fully-fledged delusion which follows is the false but convincing explanation of this. Once again the occurrence of a primary delusional state is clearly related to the ego disorder which is the central feature of schizophrenia. Because of the weakening of the ego boundaries and the failure to distinguish clearly between self and non-self, the normal processes of perception are altered. Thus, although all around may remain materially unchanged, nothing appears the same as before. This can be related to the essential basis of perception which consists not only of receiving and registering sensations, but also of giving a meaning to such sensations. Such a perceptual disturbance can, therefore, be considered as a disorder of meaning at the highest psychic level.

A word in passing may be said on the subject of hallucinations. Although hallucinations, particularly auditory hallucinations, are a common and important symptom of established schizophrenia, they are not, save in cases with acute onset, symptoms which occur as a rule until after the disorder has been in progress for some time. Hallucinations, either auditory, visual or olfactory, were present relatively early, though not necessarily at the beginning of the disease, in 16 of the series of patients under review. As a rule when they occur at

all visual hallucinations are commoner towards the beginning of the illness, after which they either wane or are replaced by the much more common auditory variety. In cases in which visual hallucinations persist, a suspicion of the presence of organic cerebral disorder rather than schizophrenia should be seriously considered, though there are occasional exceptions to this rule. Somatic hallucinations are more difficult to evaluate. They may be present early in the disorder, if not from its commencement. However, such somatic hallucinations are clearly part of the hypochondriasis, which, as has been emphasized, is such a prominent feature of schizophrenia. Whether they are in fact hallucinations, illusions or the delusional misinterpretations of a disordered ego of odd transient bodily sensations, such as any normal person may experience from time to time, is sometimes hard to decide, but in any event does not greatly matter.

One not uncommon symptom of early schizophrenia is a disturbance of sleep. Insomnia, combined with nocturnal restlessness, is the most usual variety, and was evident in 17 cases. The reverse, hypersomnia, is somewhat less common, and when it does occur is probably an expression of the tendency to withdrawal which many schizophrenic patients exhibit.

Failure, to some degree, of the ability to work efficiently is an important indicator of the seriousness of the patient's illness, though is not by any means confined to schizophrenia. The housewife, for example, may become increasingly inefficient and slovenly in her duties. Thus her lack of interest in herself, in her appearance and the dilapidation of her interpersonal relationships may, and usually does, extend to her attention to her housework, the care of her children and so on. Adolescents and young adults may, if not actually dismissed for increasing inefficiency, give up their jobs and make no further serious attempt to find others, remaining instead at home in an ever-increasing state of inanition. Or, for a time at least, there may be frequent changes of occupation, the patient drifting aimlessly from one occupation to another without making any real progress whatsoever.

Obsessive-compulsive phenomena form an important group of symptoms which may either precede the onset of schizophrenia or appear substantially for the first time at the very beginning of the illness. In addition, it is clear that a number of obsessional neurotics do, if their condition remains unchecked, lapse sooner or later into schizophrenia; the first sign of personality disintegration is an increase in the number of compulsive rituals and an alteration in quality of these towards what is more bizarre. Even in the absence of frank obsessions and compulsions, there is a marked tendency at the commencement of the disease for the patient to indulge with ever-increasing preoccupation in obsessive ruminations of a pseudo-philosophical, metaphysical, religious, sexual or frankly hypochondriacal nature. In other patients an increase in self-consciousness and in the degree of introspection may be observed. One or other of this type of onset was observed in 21 patients in this series.

Hysterical symptoms, although by no means rare, are probably less common than obsessive-compulsive symptoms. The queer hypochondriacal symptoms of which the patient may complain are often loosely misdiagnosed as hysterical, but cannot properly be considered under this heading. One patient among those under consideration started his illness with an episode of amnesia of hysterical type. Another rare, but interesting, symptom resembling hysteria is the appearance of a state of fatuous puerilism, sometimes called a "buffoonery state". This may be of acute onset.

There is, of course, no end to the range of peculiarities which may either herald the onset of schizophrenia or follow in its wake. One possibly rather rare but interesting early symptom is mirror-gazing. Here the patient becomes increasingly preoccupied by his own reflection, as if he were trying, by examination of his features, to understand an inexplicable feeling of being changed. However, mirror-gazing is not confined to patients with schizophrenia, but has been observed in those with early dementia, notably that due to Alzheimer's disease (Stengel, 1943), in which the explanation is probably substantially the same.

The Clinical Picture of Early Schizophrenia.

The clinical picture presented clearly shows some variation according to the age of the patient at the onset of the disease. In young children autistic withdrawal is the primary manifestation, with a tendency either towards mutism or towards repetitive parrot-like speech, and, characteristically, a tendency to treat other people as if they were things. With increasing age the pattern of both the onset and the established disease tends to correspond more and more with that observed in adolescents and young adults. In adolescence the insidious type of onset is the most common with, perhaps, after a period of fractiousness or disturbed behaviour, increasing withdrawal, disinterestedness and social inadequacy. Catatonic symptoms, except to a minor degree, are, on the whole, rare during adolescence, but occasionally occur.

In the young adult affective symptoms of a depressive kind may dominate the clinical picture from the beginning, with, after some initial increase in emotionality, a tendency to growing apathy and indifference. Alternatively, or in combination with these, more or less marked hypochondriasis may develop. As a general rule, the older the patient at the onset of his illness, the better the preservation of affect and emotional contact with others. Although paranoid symptoms appear sooner or later in almost all schizophrenic patients, they seem to occur most predominantly in patients in the fourth and fifth decades of life. In such patients the clinical picture may be characterized by a sudden occurrence of ideas of reference or of influence, and after this the development of secondary delusions, usually accompanied by auditory hallucinations. Frank thought disorder may be very difficult to demonstrate in some of these patients, and their contact with other persons, despite striking delusional symptoms, may remain remarkably unimpaired.

In conclusion, the protean nature of schizophrenic symptoms may be emphasized, this being almost as true of early as of established cases. Schizophrenia enters, therefore, into the differential diagnosis of all mental disorders and many physical disorders as well.

References.

- ANDERSON, E. W., lectures in psychopathology (unpublished).
BLEULER, E. (1950), "Dementia Praecox or the Group of Schizophrenias", Internat. Univ. Press, New York.
FREEMAN, T., MCGHIE, A., and CAMERON, J. L. (1957), "The State of the Ego in Chronic Schizophrenia", *Brit. J. M. Psychol.*, 30:9.
HOCH, F. M., and POLATIN, P. (1949), "Pseudoneurotic Forms of Schizophrenia", *Psychiat. Quart.*, 23:248.
MCALPINE, I., and HUNTER, R. A. (1955), "Daniel Paul Schreber. Memoirs of my Nervous Illness", Dawson, London.
STENGEL, E. (1943), "A Study on the Symptomatology and Differential Diagnosis of Alzheimer's Disease and Pick's Disease", *J. Ment. Sc.*, 89:1.

THE CLINICAL DIAGNOSIS OF EARLY SCHIZOPHRENIA.¹

By FRANCIS W. GRAHAM, M.B., B.S., D.P.M.,

Honorary Assistant Psychiatrist, Royal Melbourne Hospital;
Jessie Gregg Fellow, Department of Physical Medicine and Rehabilitation, New York University—Bellevue Medical Center.

Most psychiatrists are agreed that the earlier a diagnosis of schizophrenia is made the better the outlook for the patient, in view of our modern methods of treatment. I have used the following observations for the past few years in an attempt to diagnose the condition at a stage that is earlier than customary. I have been encouraged to place reliance on them by the fact that in a high proportion of cases the diagnosis was confirmed by Rorschach testing by an independent tester. Also, I have had the opportunity of observing some of these cases progress to an undisputed state of schizophrenia.

We are familiar with the well-developed case in a patient with delusions, hallucinations, ideas of reference,

¹ Somewhat modified from a paper read at a meeting of the Australasian Association of Psychiatrists, April 28, 1954, at the Royal Melbourne Hospital.

lack of interest, emotional dullness, lack of a sense of responsibility, change in character and personality, peculiar behaviour and so on. The signs and symptoms described in this paper occur before any of these, even before that symptom which in many textbooks is described as an early one, namely, loss of interest in the environment. I agree with those psychiatrists who believe that loss of interest is not an early symptom, but one that occurs at a fairly advanced stage of the condition.

Let us begin with inspection of the patient, as much important information may be gleaned from this. We are familiar with the fully developed catatonic rigidity as seen in many chronically ill patients in mental hospitals. However, the very earliest stages of a catatonic rigidity need to be deliberately looked for. In my experience the eyes and the hands are the best indicators. In a patient showing the early stages of catatonic rigidity the eyeball is frequently motionless in relationship to the head for a period of four or five seconds or longer. If this is seen as a regular feature throughout the interview, then it is diagnostic of the condition. The eye of the normal or neurotic person moves several times within four seconds. This rigidity can be readily distinguished from the momentary stare of surprise, suspicion or absent-mindedness. The hand may be resting on the desk or the lap, and gives the impression that it is carved in marble, and appears thus the more so if the patient is striving to control the expression of some consciously felt emotion such as sorrow or annoyance. Now, when he moves his hand, for instance to take a handkerchief from his pocket, the movement is perfectly normal and well coordinated, and the limb afterwards immediately resumes its marble-like appearance. It is as if a powerful inhibition is suddenly switched off to allow the movement, and then is switched on again at the end of it. This type of motor phenomenon can readily be distinguished from the reduced motor activity in psychotic depressions, in which the movements are rather like slow motion pictures, or look as if they are taking place in thick oil. The entire movement is slow from start to finish. The spasmodic rigidity of the tense psychoneurotic, which gives the impression of being under more nearly conscious influence, is readily distinguished. These peculiarities of eye and hand movements are often the earliest of the early signs. With these signs the face is sometimes expressionless, betraying hidden emotion by faint ripples round the chin and mouth at times. However, the patient often shows plenty of facial movement and may smile readily. In this case rigidity shows itself in a reluctance of the smile to fade. It should be pointed out that at this stage there is no question of the smile being incongruous, as in a patient in an advanced schizophrenic condition.

There is sometimes clumsiness of movement; the head does not move easily on the trunk and the toes seem to stick out, giving the impression of an awkward gait, in which the toe does not move easily down when the heel strikes the ground, and as the patient moves round the corner, there is the suggestion of the movements of a robot. This results from a generalized catatonic rigidity, which, however, may be quite mild.

The foregoing signs of catatonic rigidity are not usually seen in cases of early paranoid schizophrenia. The latter usually occurs at a somewhat later age than does hebephrenia or catatonic schizophrenia. It probably represents a reactivation of a failure of infantile ego development at a stage subsequent to the attainment of normal voluntary control over motility. Hence the motor abnormalities I have been describing are absent. If we take the series hebephrenia and catatonic schizophrenia, paranoid schizophrenia, paraphrenia, paranoid, we notice three things: they tend to manifest themselves at later ages, they show increasing ego integration, and they show less disturbance of motility. These observations are not new, but the relationship between this peculiar age incidence and early infantile development is a subject that has not yet had the attention it deserves.

An important part in the psychiatric history is the changeability of the emotional state to which the patient is subject. It seems that if the patient's emotional state changes markedly over a short period such as a few hours,

especially if the change is hard to relate to any actual events, this is an indicator of early schizophrenia. For instance, if the change is from feeling well to feeling irritable, or unhappy, or anxious, and the patient cannot tell you exactly why, it is a hint that the ego defences against the emotional drives are crumbling. This is assuming the view that an important function of the ego is the control of emotional expression, as for example, if a person experiences great rage in a situation which would normally cause mild irritation, he is suffering a failure of ego function which is psychotic in nature. It is important to note whether this phenomenon of emotional fluctuation has appeared in the previous few weeks or months. It may be argued that if one looks thoroughly enough, one will find the cause of the change of emotional state in some external event, and therefore it is hysterical after all. It is true that one can often find such an event, but it turns out to be mainly of symbolic importance; this is in itself an indication of a schizophrenic condition. For instance, a woman giving a history of a sudden change of emotional state from calm to great depression may, on careful probing, recall that at the precise moment of the change an oldish man walked past the window and disappeared. This vaguely reminded her of her old father who died twenty years before. Now this confluence of past and present on such a crude symbolic basis is an indication of a schizophrenic process. An important function of the ego is to keep the past in the past, together with the appropriate emotions, so that the normal individual reacts with emotions provoked and realistically justified by present circumstances.

The emotional fluctuations of hysterics, though unconsciously determined and irrational, are much more closely tied to real situations. For instance, the phobic patient will remain quite calm as long as she does not have to ride alone in a tram; or the patient suffering from hysterical depression will feel her depression very marked when somebody is rude to her in a shop.

The recent dream life of the patient sometimes provides important clues. In the early schizophrenic one may find dreams involving dismemberment or bodily disintegration, sometimes blood. This preoccupation in phantasy with parts of the body probably comes from the most primitive layers of the mind, and reminds us of some modern psychoanalytical theories, which hold that the earliest mental and emotional processes are concerned with part objects rather than with whole objects, and that in adult schizophrenia we have a reactivation of these layers. I have the impression that the dismembered body represents the mutilated maternal breasts, in which case the object of the destructive impulses is kept from consciousness in the dream by the mechanism of displacement (body = breast; limb = nipple).

In some dreams of more integrated paranoid schizophrenic patients, persons are not dismembered but are killed, and the patient sees the whole body dead. Dreams of murdering, or being murdered, are important. This is of worse prognosis than the mere idea occurring in the dream of the person being dead, which is common in neurotic and normal persons. These latter show a better ego integration, with the primitive killing impulse disguised. The psychotic type of dream may alternate with that seen in a normal person, in which there is good secondary elaboration, and the primitive impulses are almost completely hidden. Other neurotic ways of expressing death wishes are to dream of persons walking away or being absent.

For example, a patient had two dreams on successive nights. In the first she dreamed of opening a bag and finding her child's shoes, together with some blood-spattered limbs. In the second she dreamed of her child walking along a very high and dangerous parapet with, however, a sureness of step that made it look as though there was no possibility of his falling. A kitten that was with him had the greatest difficulty in maintaining its footing. The theme of both these dreams is the same—hostility and destructive impulses towards the child. In the first the impulse is relatively undisguised; in the second the defensive action of the ego against these impulses is strong: the child walks firmly and the destruc-

tive wish is displaced on to the kitten and even the kitten is not allowed actually to fall. This mixture of types of dreams over the previous few weeks or months is in itself a sign of ego strength being in a precarious state. It is an indicator of an approaching schizophrenia. It should be pointed out that the isolated occurrence of these psychotic types of dreams are not of much importance, as almost anybody can at times have such dreams. It is their recent appearance for the first time and their frequency that are the important diagnostic indicators.

The patient who complains of feeling confused and yet betrays no trace of actual confusion in his discussion during the interview, is more often than not showing a symptom of early schizophrenia. Sometimes we see patients who are very tense throughout the interview and who show sudden releases of emotional energy in such activities as gestures of annoyance or as laughter. The emotional expression is quickly checked, and the general tense attitude resumed. In my opinion this is one of the earliest signs of the impulsive outbreaks that often characterize the fully developed case of schizophrenia. Some patients show phases of withdrawal followed by contact. If this occurs many times during the interview, it is a sign of fluctuating ego functions, and is therefore significant.

Blocking, or the sudden cessation of thinking, with perhaps a slight blurring in orientation, is sometimes seen, and if it occurs several times it should be taken seriously, particularly if it is not already noticed and remarked on by the patient himself. In obsessional neurotics one sometimes sees pseudo-blocking, due to the patient being overcome by some ritual of thinking which interferes with his discussion. In contradistinction to schizophrenic blocking he is much more clearly embarrassed by the symptom which shows an ego more in contact with reality.

Patients who give their history in generalities without much reference to particular examples should arouse one's suspicions. It is not that talking generalities is pathological in itself, but some early schizophrenics show the strongest resistance against talking in particulars, even when pressed, and it is this difficulty in making the easy switch from the general to the particular that is significant. They often show the most highly developed and intelligent capacity to handle concepts. For instance, they can sometimes give a brilliant discourse on a subject such as good and evil without giving one instance of anything that was good, or of anything that was evil.

Some psychiatrists maintain that we are all potential schizophrenics, so we may ask what is the sense in making these fine points. I think the important question to ask is: "Has a change taken place in the patient in the course of the last few weeks or months in the direction of these signs and symptoms?" The change is an indicator of a progressive failure of the integrating processes of the ego, which allows the appearance of more and more splitting processes in the mind. When the ego disintegrates, the mind tends to return to its earliest stages of development, which is probably one of isolated functional elements.

Some of these cases of early schizophrenia become arrested and remain in this early stage for many months if not indefinitely. However, there is no doubt that many would progress to fully developed schizophrenia if the patient is not treated adequately, and some would progress thus in spite of all treatment. Hence I think that the attempt to differentiate early schizophrenia from an hysterical condition is far from a mere quibble, and is much more than an argument about nomenclature. It has important implications for prognosis and treatment. I should say that the only way really to test the validity of these signs and symptoms is to study a large series of cases over a period of several years. This would be more satisfactory, from a research point of view, than confirmatory evidence from psychometric testing, though this has a definite place.

Summary.

The important signs and symptoms are as follows:

1. Catatonic rigidity of the eyes and hands.
2. General clumsiness.

3. Emotional fluctuations poorly related to reality.
4. Mild emotional explosiveness.
5. Dreams of bodily disintegration.
6. Blocking.
7. Resistance against talking in particulars.
8. Feelings of confusion in the absence of evidence of it.

The first sign is important in the absence of a neurological lesion in the region of the third ventricle. It often accompanies the second sign, which on its own is of no significance. The other symptoms, except the seventh one, are often seen together; the seventh symptom is more commonly observed in the schizoid character, but does occur sometimes in patients with relatively acute pre-schizophrenic conditions.

CERTAIN ASPECTS OF WEIGHT GAIN IN PREGNANCY.

By J. H. BOLTON,
Melbourne.

WEIGHT GAIN in pregnancy has been discussed by a variety of investigators (Hughes, 1951; Dieckmann, 1952; Hamlin, 1952; Thomson and Billewicz, 1957), and emphasis has been given to its control in the prevention of toxæmia of pregnancy. The methods used to prevent excessive gain in weight are largely concerned with caloric restriction, although Hamlin gives some emphasis to increased protein in the diet. There are many factors involved in weight change, and these include adiposity, fluid retention and the weight of the baby. Changes in adipose tissue can be assessed by measurement of skinfold thickness, while an approximation to the weight added by the baby at any particular time can be derived in retrospect from a consideration of the weight of the baby on delivery and the assumption that it grows in an exponential manner. This investigation was instituted in an attempt to assess the relative importance of these factors.

Method and Material.

Patients were referred at random and were followed at approximately monthly intervals until delivery. The patients were weighed clothed on lever scales, and the birth weight of the baby was recorded. Twelve cases were followed. Skinfold thickness was measured at various sites, that below the angle of the right scapula being the most accurate. Harpendon calipers (Edwards, 1956) were not available, so measurements were made with a simple vernier caliper to the nearest millimetre. This was done by pinching up the skin between the thumb and forefinger and measuring across the base of the nails, the thickness of the fingers being deducted from the result. An attempt was made to exert consistent pressure with the fingers in each case. The accuracy of this method has been criticized, but experience in over 3000 measurements suggests that in the hands of a single individual results do not vary more than one millimetre in repeated estimations on the same patient at constant weight. In any case, for the purpose of this investigation, extreme accuracy is not required.

Results.

The results are shown in Table I. From these weights the assumed weight of the baby at any particular period was deducted, and these are shown in Figure 1 expressed as average gain in weight in pounds and contrasted with average loss of skinfold thickness. Examination of this chart shows a fairly steady gain in weight throughout pregnancy. Skinfold thickness parallels this gain approximately to the fifth month, and thereafter steadily falls. Up to the twentieth week, changes in skinfold thickness can be shown to correlate quite well with changes in

¹ King George V Jubilee Scholar, Royal Women's Hospital, and Department of Obstetrics and Gynaecology, University of Melbourne.

weight ($r = 0.783$) and, using regression methods, indicates a change of approximately one pound for each millimetre change in skinfold thickness. This corresponds with what has been found when following cases of obesity on reduction diets. It is naturally approximate and varies with the site chosen for measurement and the build of the patient. From the twentieth week, when weight is increasing most rapidly, fat is obviously being lost, which argues that this weight gain is largely due to fluid retention.

TABLE I.
Results of the Investigation on Twelve Patients.

Case.	Baby's Weight.	Mother's Weight in Pounds. (Skinfold Thickness in Millimetres in Parentheses.)						
		Months.						
		2	3	4	5	6	7	8
1	lb. oz. 7 10	204 (57)	197 (56)	196 (53)	195 (51)	198 (49)	206 (42)	205 (38)
2	7 11	172 (46)	174 (42)	177 (41)	183 (41)	182 (38)	184 (36)	185 (35)
3	6 5		116 (17)	117 (18)	121 (19)	123 (20)	127 (19)	132 (21)
4	7 7	115 (17)	119 (17)	124 (19)	127 (22)	128 (20)	130 (18)	130 (18)
5	5 12			119 (19)	121 (19)	122 (18)	124 (16)	125 (14)
6	8 14½				114 (19)	124 (18)	133 (17)	
7	7 8½				113 (22)	120 (21)	123 (18)	123 (15)
8	8 5½	128 (20)	132 (21)	136 (25)	135 (22)	137 (19)	138 (16)	141 (13)
9	8 5½		121 (24)	125 (27)	130 (27)	134 (27)	139 (26)	136 (26)
10	6 13½		138 (28)	135 (27)	142 (27)			
11	5 8½			129 (34)	130 (40)	137 (39)	141 (38)	150 (36)
12	8 0½				163 (37)	171 (37)	172 (35)	175 (33)

Two cases are quoted in illustration of the value of skinfold measurements.

The first patient (Figure II) was a placid woman who had been obese all her life. She was placed on a 1720 Calorie diet and lost weight satisfactorily with a parallel decrease in her skinfold thickness. From the twentieth week her weight commenced to gain, so that at about the twenty-fifth week she was given a 1200 Calorie diet. This resulted in an increased rate of fat loss, but despite this her weight continued to increase. This shows how changes in body water can be concealed by fat loss.

The second patient's condition (Figure III) was more serious. She was an emotional woman who gained weight up to the twentieth week. This gain was associated with a corresponding gain in skinfold thickness. At this stage she was placed on a 1720 Calorie diet and remained on this to term. The diet resulted in a continuous reduction of her skinfold thickness, but no reduction in her weight. She became toxæmic, and after delivery was weak and emaciated, being approximately one stone under weight, with a skinfold thickness of nine millimetres. Again there was a concealed change in body water.

Discussion.

Unless there has been redistribution of fat away from the site chosen for skinfold measurement, these results indicate that weight gain, particularly in the period from twenty weeks to thirty weeks, has nothing to do with obesity. Redistribution is extremely unlikely, particularly when we consider the constant effect of diet on skinfold measurements in the two cases quoted, and contrast this with the relative stability of skinfold in the cases in which the diet remained approximately the same throughout.

pregnancy (Table I). Another possible explanation is that there is a positive nitrogen balance over and above that required for the fetus. In this material, protein intake and amino acid excretion in the urine suggest that the reverse is more likely to occur (data to be published). Finally, it may be argued that the assumption of exponen-

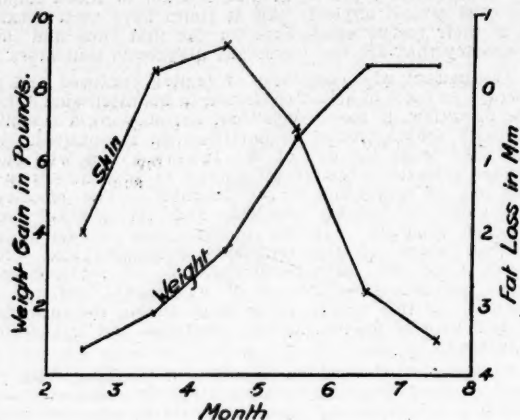


FIGURE I.

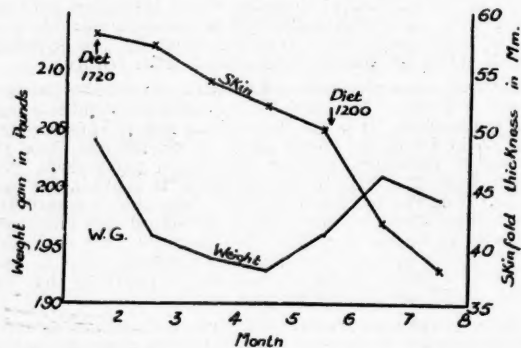


FIGURE II.

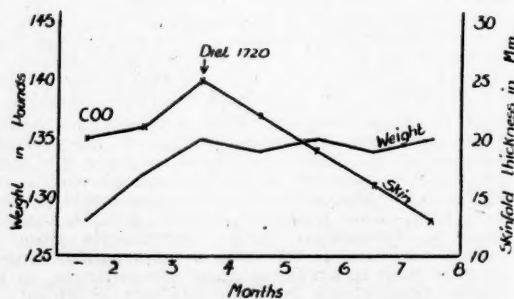


FIGURE III.

tial growth over-corrects for the weight of the fetus. Comparison of the birth weight of the baby with the weight changes experienced, combined with what is known about the growth of the fetus in utero, excludes this.

It is difficult, therefore, to escape from the conclusion that, in this material, weight gain in pregnancy, particularly after the twentieth week, is due largely to fluid retention. If this is generally true, the use of reduction

diets should be approached with care, and their misuse is well seen in the second case quoted. If their effectiveness in the control of severity of toxæmia is accepted, it is unlikely that any benefit is derived solely from calorie reduction. It seems more likely that any improvement would be due to a simultaneous reduction in other factors, e.g. salt. Conversely, it may be due to the substitution of carbohydrate by some less caloric but more nutritious material, e.g. protein. Finally, the question of concealed change in total body water must be considered. This is well shown in the two cases quoted, and was particularly dangerous in the second owing to its lack of recognition.

This is a subject which has obvious implications in general medicine. Cases of cardiac and renal disease in circumstances of varying caloric intake or need cannot be adequately assessed by weight alone. In such conditions skinfold measurements are a necessary concomitant to the use of the scales.

Conclusion.

In the material studied, fluid retention appears to be the major factor in weight gain during pregnancy, particularly after the twentieth week. The uncritical use of reduction diets in weight control in pregnancy is to be deprecated. Skinfold measurements give valuable additional information in cases in which weight change and control are important.

Bibliography.

- DIECKMANN, W. J. (1952), "The Toxæmias of Pregnancy", 2nd Edition, London.
 EDWARDS, D. A. W. (1956), "The Estimation of the Proportion of Fat in the Body by the Measurement of Skin-Fold Thickness", *Am. J. Clin. Nutrition*, 4: 1956.
 HAMLIN, R. H. J. (1952), "The Prevention of Eclampsia and Pre-Eclampsia", *Lancet*, 1: 64.
 HUGHES, T. D. (1951), "The Importance of the Relativity of Blood Pressure and Other Signs in the Prevention of Eclampsia", *M. J. AUSTRALIA*, 2: 871.
 THOMSON, A. M., and BILLEWICZ, W. J. (1957), "Clinical Significance of Weight Trends during Pregnancy", *Brit. M. J.*, 1: 243.

POISONING DUE TO USE OF CARBON TETRACHLORIDE.

By D. O. SHIELDS,

Industrial Hygiene Division, Department of Health, Victoria.

As a result of the use of carbon tetrachloride for cleaning out the coils in the evaporator room of a cargo ship, 15 men were affected to varying degrees, and one of them, the chief refrigeration engineer, lost his life. The evaporator room measured approximately 20 feet by 15 feet by nine feet high. It was situated low down in the ship. The only entrance to it was through a short alleyway about five feet long, five feet high and three feet wide. The floor of the refrigerator room was about 18 inches lower than the floor of the alleyway. There was no means of ventilation except through the doorways at each end of this alley which were open. The two evaporators occupied a considerable proportion of the space in the room.

The method of cleaning the coils was to pump carbon tetrachloride into the coil by means of a hand pump inserted through the hole in the top of a four-gallon can of the liquid, and connected by flexible hose to the end of the coil. After remaining for some time in the coil, the liquid was run out of the coil into a fine wire screen about six inches in diameter inserted into a metal cone, and thence into another can through a bung-hole at the top. During both the pumping in and the running out of the liquid the operator was bent over the respective cans. In this case especially, with his face fairly close to the stream of liquid running on to the broad surface of the filter, he was in such a position that the inhalation of high concentrations of vapour was inevitable.

There were a number of men in the evaporator room and others working in the vicinity. In addition to six men who worked on the coils at some time, there were four

plumbers and plumbers' labourers who were engaged on fitting lead on the floor of the evaporator room along one side. They were using oxy-acetylene burners in this process. The plumbers and their labourers ceased work after a short period because of the "fumes". A number of the men smoked during their work. This will be referred to later. Four men not engaged on work in the evaporator room were working in or in the vicinity of a tank under the floor of the engine room, the entrance to which was through a manhole situated about 20 feet from the doorway leading from the evaporator room alley to the engine room.

Until the occurrence of the unfortunate happenings to be described drew attention to the danger, no positive ventilation was provided, and gas masks were not worn. Approximate calculations based on the amount of carbon tetrachloride used and the volume of the evaporator room showed that, on the assumption that there were no air changes (and from the configuration of the evaporator room and its sole approach there could not have been many), concentrations in the general air in the evaporator room of 30,000 parts per million of carbon tetrachloride may have been reached. The concentrations above the sieve may have been much higher than this.

The date of the occurrence was July 14, 1948, but it was not brought to the notice of the Industrial Hygiene Division until July 23. On this date an inspection was made by the author, and a number of the men were seen; they were advised to report to a public hospital for investigation as a number of them still had symptoms. They were investigated as out-patients, and some were referred to their own doctors.

After the danger of the process was recognized by the effects on the patients in Cases I and II especially, the work was suspended until a blower had been installed for ventilating, and respirators of the charcoal type were issued and worn.

In addition to the hazard due to carbon tetrachloride, there was that due to phosgene caused by the oxy-acetylene flame, and by the lighted cigarettes. So far as the latter are concerned, practically only the smoker himself would be subject to the phosgene produced by his cigarette, but all in the evaporator room and its vicinity would be exposed to that produced by the plumbers' burners, the plumbers themselves being exposed to the greater concentrations.

The carbon tetrachloride used was supplied by a well known firm, and conformed to the Australian Standards Association standards.

Apparently a small amount of work was done by the patients in Cases I and II in the evening of July 13, but owing either to the exposure not being sufficiently great, or to the effects of the vapour being delayed, nothing untoward was recognized.

Reports of Cases.

CASE I.—On July 14 the patient had commenced degreasing the evaporator at 8 a.m. At about 12 o'clock he ceased work as he was feeling unwell, and he returned to his cabin. He had attacks of vomiting. He was seen by a doctor, but could not be persuaded to go to hospital. He was seen by the doctor again on July 16, and also on July 17, when he appeared much better. On July 19, although his general condition, pulse etc. was very good he had signs of bronchial involvement. This was still present on the following day, and attempts were made to secure a bed in a private hospital. On July 21 he suddenly became much worse and was admitted to a public hospital suffering from cardiac asthma. He died on July 22 at 12.45 a.m.

Post-mortem findings showed a dilated heart, swollen kidneys and extensive toxic changes in the lungs and liver. The opinion expressed by the government pathologist was that his death was caused by carbon tetrachloride poisoning.

Clinical notes of his condition after his admission to hospital on July 21 were as follows: He had had wheezy breathing for five days. The urine was scanty and tinged with blood. Abdominal distension had commenced two days earlier. His blood pressure was 200/110 millimetres of mercury. He was dusky and cyanosed. Numerous moist sounds could be heard in the chest. There was spasm of retinal arteries. The blood urea level was 328 milligrammes per 100 millilitres.

Treatment consisted of the administration of intravenous fluids and peritoneal lavage. The urea content of the dialysing fluid was 0.6%.

Post-mortem findings were as follows:

Trachea. Gross injection with almost submucosal haemorrhages particularly between the cartilages. Some petechial haemorrhages on epiglottitis.

Liver. Dark in colour with haemorrhages in the central portion of the lobules, yellowish brown colour in the main substance. Microscopically: Gross damage present. Central portions of most of the lobules necrotic; the remnants of liver cells are seen amongst capillaries and some connective tissue framework. In peripheral portion most of the cells have normal appearance, but some show a fatty infiltration. There is a good deal of bile pigment either in the Küpfer cells or in the bile canaliculi.

Kidney. Large and swollen, the cortex pale, the medulla dark, with marked haemorrhage into the mucosa of pelvis and calyces. Microscopically: Gross distortion is present, the glomerular spaces are large, the tufts somewhat distorted; the tubules are generally dilated, the epithelium flattened. Many contain haemorrhages, amorphous debris and leucocytes, particularly in the pyramids. The vessels are markedly dilated, and in some cases there appears to be direct communication between capillaries and tubules.

CASE II.—The patient was a man aged 32 years. He worked for a short period in the evening of July 13 at degreasing the evaporator. On July 14 he commenced work at 8 a.m. At 2.30 p.m. he was overcome by the vapours and lost consciousness. He was unconscious for about 12 minutes, and was pulled out by other men. He had been smoking cigarettes while working and had blown into the hose on one occasion. The liquid "blew back" and splashed him slightly in the face, and he thought he might have swallowed a small amount. After recovering consciousness he had attacks of vomiting and constant headache during the rest of the day and night. He again worked with the carbon tetrachloride on the next day, wearing a gas mask. He vomited again, and then ceased work and went home. Since the first effects he had been short of breath, had had headache, bad cough with greenish sputum, palpitation on exertion, poor appetite, and frequency of urination, five times a day and seven or eight times a night. His lips and ears were slightly cyanosed.

He was first seen by an officer of the Industrial Hygiene Division on July 23, and he was advised to report to hospital.

At hospital his blood pressure was 140/95 millimetres of mercury. His heart was normal, and no abnormality was detected in the chest. There was some tenderness under the right costal margin, but the liver was not palpable. He was recommended for admission to hospital, but on August 3 he had not been admitted. He was vomiting two or three times per day, and was still short of breath. He was referred to his private doctor. His symptoms were still present, and he had previously vomited a little blood. He was still short of breath on exertion, but there were no abnormal signs in his chest. He was put to bed and treated with high carbohydrate and protein diet (no fats), calcium gluconate tablets and vitamin B complex. On August 27 his condition was still unsatisfactory and he was started on methionine, 12 tablets (one gramme) per day, in addition to the previous treatment. His condition immediately improved. On September 13 bile salts in the urine were +, urobilin in the urine was between 1/10 and 1/20, cephalin flocculation (24 hours) was +++, prothrombin time was 18.8 seconds.

On September 23 he was recommended by a consultant to return to work in the near future. On November 17 he developed an attack of bronchitis, and five days later became asthmatic, and he needed adrenaline injections until December 13. On December 31 his chest was clear and he was feeling well. Whether his asthma was a delayed result of the poisoning is open to doubt, but it was accepted as such by the insurance company under the *Workers' Compensation Act* on the advice of the company's medical referee.

CASE III.—The time of the onset of symptoms in the patient in Case III is somewhat doubtful, but within a couple of days of the exposure his symptoms and signs included pain in the epigastrium, great shortness of breath, tiredness and drowsiness, insomnia, anorexia and eructations, headache (frontal), pain in the lumbar region, frequency of urination (15 times per day), cough with sputum and also dry and irritating, which caused him to vomit.

Various tests performed between July 26 and July 30, including liver function tests and X-ray examination of the chest, revealed nothing abnormal.

On August 3 he still did not feel well and was referred to his own doctor. He was still short of breath, had dizzy

turns, no energy, and looked a sick man. He was put on free fluids (preferably sweetened), vitamin B complex, "Veracolate", calcium gluconate and "Dexsal" drinks. His urine at this time was heavily pigmented. He was unable to take any fats. He was then put on methionine tablets in addition to the other treatment. After seven to ten days he was able to tolerate small amounts of fats, and his urine became normal in colour. On September 13 the only abnormal findings were some bile salts in the urine, a slightly low hippuric acid excretion of 2.6 grammes (three grammes or more is normal), and a trace of occult blood in the faeces.

By September 21 he had lost 11 pounds in weight in six weeks, but he felt quite well apart from some abdominal tenderness in the right hypochondrium. By October 29 he was quite well, and his abdomen was physically normal.

CASE IV.—Several days after exposure, the patient in this case noticed pain in the back, consisting of a dull ache in the lumbar region on both sides; cough and severe shortness of breath started. On July 26 he was still short of breath and the sputum showed a blackish tinge, but no blood. His appetite was poor, and a slight headache was present. On July 27 to 30 the cephalin flocculation test gave a negative result, the urine showed no abnormalities, the blood urea level and the serum bilirubin level were normal. The bleeding time was eight minutes (normal is two to five minutes), and the clotting time was 11 minutes 10 seconds (four to seven minutes is normal). The Van den Bergh test gave a slightly positive result. The chest X-ray picture was clear.

On August 3 he still had pain in the back, shortness of breath, frequency of urination at night, insomnia and a slight cough. He was referred to his private doctor. He was put on the same treatment as the patient in Case II, and was seen every few days until August 27. He was then feeling a little better. He was given methionine, six tablets (0.5 gramme) daily, in addition to the other treatment. His condition then improved rapidly. Liver function and other tests were performed on September 13. The only abnormalities were a serum bilirubin level of 1.5 units (normal is 0.2 to 1.0 unit), hippuric acid excretion of 1.6 grammes, a prothrombin time of 26 seconds (16 seconds is normal), and a prothrombin index of 61% (over 80% is normal). From this time on he remained well.

For the sake of brevity the details of the other cases are not given, but in Table I is summarized the information as to the number of patients showing abnormalities in the results of laboratory tests, and in Table II the number showing specific symptoms or signs. It is emphasized that the laboratory tests were not performed until 12 to 14 days after the major exposure.

There was no consistent relationship between the severity of the initial symptoms and the presence or absence of abnormalities in the tests performed 12 to 14 days later.

The most severe of the non-fatal cases (Case II) showed a negative result for the cephalin flocculation on July 30, but +++ on September 13.

Discussion.

The extremely dangerous nature of operations using carbon tetrachloride in enclosed spaces without adequate artificial ventilation or personal protection is already well known and no further comment is necessary on this point. However, these cases are of interest for two reasons. The first is that they confirm the value of methionine for the treatment of liver damage due to toxic chlorine compounds. This has already been reported by Eddy (1945). The other is that the symptoms exhibited, while including those related to liver damage and kidney involvement, also indicate damage to the respiratory tract.

Thompson (1946), in the reports of 20 cases of carbon tetrachloride poisoning in which there was no breakdown of carbon tetrachloride, made no mention of cough or shortness of breath. There was such an absence of respiratory symptoms that an X-ray examination was not made until the seventh day or later after the patient's admission to hospital. One of the patients, after being acutely ill for six days with backache, malaise, vomiting, severe oliguria and albuminuria, improved and appeared to be the least ill of the critically ill patients. Suddenly acute respiratory distress set in and he died in 30 hours. The temperature was normal and remained so.

Browning (1938), in an extensive review of the literature to that date, made no reference to cough or shortness of breath. However, in animal experiments there have

been signs of irritation to the mucous membrane of the respiratory tract.

It is possible that the cough and shortness of breath which came on so early in the cases discussed in this paper may have been due to phosgene formed by the action of the oxy-acetylene flame or by the heated cigarette ends on the carbon tetrachloride vapour. In this connexion it would be tempting to relate the incidence of cough and shortness of breath to the smoking. It is true that all of those who smoked (eight) suffered from shortness of breath, but this number included six who were most

3. The symptoms were probably due to vapours of carbon tetrachloride and phosgene, the latter being caused by the oxy-acetylene flame and/or cigarettes.

Acknowledgements.

Acknowledgement is gratefully made to Dr. L. S. Hudson, the Medical Superintendent of the Prince Henry's Hospital, for access to post-mortem notes and for clinical notes and laboratory reports; to Dr. K. Bowden for post-mortem notes; to Dr. L. T. Currie and Dr. P. Rowan, junior, for clinical notes and laboratory reports on their patients.

References.

- BROWNING, E. (1937), "Toxicity of Industrial Organic Solvents", Medical Research Council, Industrial Health Research Board, Report No. 80.
EDDY, J. H. (1945), "Carbon Tetrachloride Poisoning—A Preliminary Report on the Use of Methionine in Hepatitis", *J.A.M.A.*, 128: 994.
THOMPSON, C. M. (1946), "Pulmonary Changes in Carbon Tetrachloride Poisoning", *Am. J. Roentgenol.*, 55: 16.

PANCREATIC CYSTS, WITH REPORT OF A CASE TREATED BY INTERNAL DRAINAGE.

By W. H. NEILD, B.A., M.B., M.S., F.R.A.C.S.,
Newcastle.

Cysts of the pancreas are uncommon, and in consequence most surgeons encounter only an occasional case. The rarity of this disorder can be estimated from Judd, Mattson and Mahorner's (1931) report from the Mayo Clinic, where only 88 patients with cysts of the pancreas were submitted to operation out of nearly three-quarters of a million patients admitted to hospital. Connolly and McGreevy (1954) examined the records of over 300,000 patients in the Creighton University group hospitals and were able to find only six cases. During the past five years approximately 100,000 patients were admitted to the two major hospitals in the Newcastle area, the Royal Newcastle Hospital and the Mater Misericordiae Hospital, Waratah, and except for the large pseudocyst reported hereunder the only instances have been four cases of fibrocystic disease of the pancreas occurring in infants.

Classification.

The following classification of cysts proposed by Judd, Mattson and Mahorner (1931) is the most commonly accepted one: (i) Cysts due to defective development, which include (a) congenital cystic fibrosis in infants; (b) pancreatic cysts associated with similar lesions in the kidneys and liver; (c) dermoid cysts; (d) teratomatous cysts. (ii) Retention cysts. (iii) Neoplastic cysts, which may be either (a) cyst adenoma or (b) cyst adenocarcinoma. (iv) Parasitic cysts, which are almost exclusively due to hydatid disease. (v) Pseudocysts, which are caused by either trauma or inflammation.

In practice, surgical treatment is most commonly required for pancreatic pseudocysts, which according to Brunschwig (1942) comprise 25% to 33% of all cases of pancreatic cysts, and for the rare neoplastic cysts. The latter are usually due to cystic degeneration in either a benign adenoma or an adenocarcinoma and require extirpation if this is practicable.

Ætiology of Pseudocysts.

Pseudocysts are due to the accumulation of pancreatic ferments, exudate and blood in the lesser omental sac, the foramen of Winslow becoming sealed off early in the process. The principal antecedent factor is acute or sub-acute pancreatitis, and this accounts for some 80% to 90% of cases. The remainder are caused by crushing trauma to the upper abdomen, which compresses the pancreas against the lumbar vertebrae with consequent rupture of the gland. This permits the escape into the lesser sac of pancreatic juice, which along with inflammatory exudate comprises the fluid contents of the cyst. The pseudocyst differs from the true cyst in having no epithelial lining, and its walls consist of the adjacent

TABLE I.
Number of Patients Showing Abnormalities in the Results of Laboratory Tests.

Nature of Test.	Number Showing Abnormal Result.
Cephalin flocculation	3 in 14
Serum bilirubin	1 in 4
Blood urea	5 in 14
Van den Bergh	4 in 12 ¹
Bleeding time	3 in 14
Coagulation time	3 in 14
Prothrombin time	0 in 8
Prothrombin index	0 in 8
Albumin in urine	1 in 12 ¹
Bile in urine	2 in 13 ¹
Pus cells in urine	3 in 12
Blood cells in urine	2 in 10
Chest X-ray examination	4 in 13 ¹

¹ Slightly positive.

¹ One patient showed an extension of markings, one mild pneumonitis, one left-basal adhesions, and one left basal pneumonitis.

probably exposed to the highest concentrations of carbon tetrachloride. Out of the seven non-smokers, two suffered from shortness of breath, but four of these were in much lower concentrations—not in the evaporator room—two were in the evaporator room doing lead burning, but left early. One of these suffered from shortness of breath; the other did not. The other non-smoker was in the evaporator room for some time. He suffered from shortness of breath.

TABLE II.
Number of Patients Showing Specific Symptoms or Signs.

Symptoms or Signs.	Number Showing the Symptom out of the Most Severely Exposed (Seven).	Number Showing the Symptom out of the Total Number (Fifteen).
Shortness of breath	7	10
Frequency of urination	5	9
Poor appetite	5	8
Cough	4	10
Headache	4	9
Abdominal pain	4	4
Dizziness	4	5
Sleepiness	3	6
Pain in the back	3	6
Nausea	3	5
Vomiting	2	3
Diarrhoea	1	3
Unconsciousness	1	1

It is possible that the oxy-acetylene flame may have been a much more potent factor in producing phosgene than the cigarette. The most likely conclusion is that the cough and shortness of breath were caused by phosgene, but that the most important cause of its production cannot be determined on the evidence available in this series of cases.

Summary.

1. Fifteen cases are recorded, one of which was fatal, of poisoning due to the use of carbon tetrachloride in a small space.

2. Treatment of three patients with methionine caused a rapid improvement in their condition.

structures—stomach, gastro-hepatic omentum, gastro-colic omentum, transverse colon, transverse mesocolon, duodenum or pancreas according to the location of the cyst. However, at some point in its wall it communicates with the duct system of the pancreas or its secretory tissue. This fact accounts for the gradual increase in size of the cyst and also for the chronic nature of the sinus that may follow external drainage. The cyst contents vary from thin straw-coloured fluid to thick viscid material of dark brown colour. Variable amounts of pancreatic ferments may be present, or they may be completely absent.

Symptoms and Signs.

The two cardinal clinical features are pain and an abdominal tumour. Pain is present in at least 85% of cases, and is experienced in the epigastrium and left hypochondrium. It commonly radiates to the back on the left side, and varies from a dull constant ache to pain of extreme severity. Doubtless the pain is related to the pancreatitis which has produced the cyst and which is so apt to be recurrent.

The tumour is the most striking feature and is situated above the umbilicus, usually in the epigastrium and left hypochondrium. It is present in about 95% of cases (Benson and Gordon, 1947; Korte, 1931) and is rounded, smooth, tense, non-tender and immobile (unless it arises in the tail of the pancreas). The cyst may increase slowly over a period of years, or a mass known to have been present may suddenly increase in size. The tumour may vary in size from time to time, as in the case reported by the author.

Occasionally the only symptoms present are caused by pressure on nearby organs, particularly the stomach, so that anorexia and post-prandial epigastric discomfort occur along with nausea and vomiting (Adams and Nishijima, 1946).

Extra-Clinical Aids.

Radiology is of the utmost value, as it may demonstrate displacement of the stomach, duodenum or transverse colon or widening of the duodenal loop by an extrinsic mass.

Differential Diagnosis.

Other conditions which must be differentiated from pancreatic cysts are omental cysts, retroperitoneal cysts and tumours, grossly enlarged gall bladders, splenic cysts and hydronephrosis.

Report of a Case.

Mrs. A., aged 63 years, was referred by Dr. E. L. Kinsella and was admitted to the Mater Misericordiae Hospital, Waratah, on January 3, 1956. She gave a history of a known swelling in the upper abdomen for over 20 years. This had been slowly increasing in size. Twenty-five years earlier she had undergone cholecystectomy for attacks of abdominal pain associated with vomiting. She had at times been jaundiced prior to operation. She stated that the abdominal tumour was painful at times, and commonly became bigger with meals so that she had to loosen her clothes. There was no vomiting, but she had suffered from chronic constipation for many years.

Examination revealed a large tumour in the left hypochondrium and in the epigastrium. It projected up underneath the left costal margin. It was smooth in outline but firm. It did not move with respiration and extended into the loin. It was tender on deep pressure. There were no other significant physical findings.

The following extra-clinical investigations were made.

A full blood count gave the following information: the hemoglobin value was 16.1 grammes per 100 millilitres; total leucocytes numbered 7300 per cubic millimetre, of which 58% were neutrophils, 27% small lymphocytes, 8% large lymphocytes, 4% monocytes, 2% eosinophiles, and 1% basophils.

The immediate and the delayed Casoni reaction was negative.

An analysis of the urine showed an occasional red cell, an occasional granular cast and numerous oxalate cells. No growth was found on culturing the urine.

An X-ray film of the chest showed age changes in both lung fields with slight emphysema. No active pulmonary pathological condition was detected. The cardio-vascular

outline showed slight generalized enlargement, chiefly left ventricular with uncoupling of the aortic arch.

An intravenous pyelogram showed that the right kidney appeared normal in size, shape and position. In the region of the left kidney there was a large oval tumour. Some excretion from the left kidney took place mainly from the upper calyceal group. The rest of the left pelvi-calyceal system was obliterated by the tumour.

An electrocardiograph was reported on as showing early left ventricular hypertrophy.

In a barium enema X-ray examination no lesion of the large bowel was revealed. A barium meal X-ray examination gave the following findings. There was some oesophageal regurgitation in the Trendelenburg position. No intrinsic lesion of the stomach could be seen, and barium passed normally into the duodenum and small bowel. The stomach was displaced anteriorly and to the right almost to the mid-line by a large soft tissue mass in the left hypochondrium. It was thought that this large mass could be either a left renal tumour or a tumour of the tail of the pancreas, or possibly a mesenteric cyst.

A pre-operative diagnosis of pseudo-pancreatic cyst was made, and a laparotomy was performed on January 19. A large thick-walled pancreatic cyst was found. It was presenting between the stomach and the transverse colon (Figure 1). The gastro-colic omentum was incised and the cyst aspirated. It proved to contain just over 1000 millilitres of clear light-brown fluid. The wall of the cyst was thick and fibrous, and its interior was trabeculated in places. In view of the fact that the patient had noted changes in the size of the tumour with meals, marsupialization was considered inadvisable because of the risk of a permanent fistula resulting. A loop of jejunum 60 centimetres from the duodeno-jejunal flexure was brought up in front of the transverse colon and anastomosed to the cyst in two layers, the outer of which was of silk. The anastomosis was five centimetres long. An entero-anastomosis between the afferent and efferent loops about 30 centimetres from the jejuno-cystic anastomosis completed the operation.

Convalescence was uneventful, and the patient was discharged from hospital on the sixteenth post-operative day. A follow-up investigation revealed that she has remained well since she left hospital and has had no further attacks of pain. A barium meal X-ray examination performed three months after operation disclosed that none of the barium entered the cyst.

A small section of the cyst wall excised at operation revealed dense fibrous tissue but no epithelial lining. Feeble activity of all three enzymes was exhibited by the fluid recovered from the cyst.

Treatment.

If a cyst is large enough to be diagnosed, surgery should be undertaken, as its gradual increase in size is likely sooner or later to interfere with the function of surrounding organs by pressure. Furthermore, operation offers some prospect of relief from pain if this is a feature of the cyst. Untreated cysts have on rare occasions ruptured, either into the general peritoneal cavity producing general peritonitis (as reported by Koucky, Beck and Todd, 1941) or into the alimentary tract. This latter event may produce spontaneous cure as in Payr's case, or it may precipitate haematemesis which may threaten life (Pascucci, 1944). Perforation into the general peritoneal cavity is a serious disaster, carrying a mortality rate of 75% according to Meyer *et alii* (1944). Four out of Koucky's six patients died.

The ideal treatment would be complete extirpation of the cyst, but this is usually quite impracticable, as vital structures such as the stomach, transverse colon and its mesentery comprise the walls of the cyst. Milroy Paul (1949) records the complete enucleation of a cyst which proved, however, to be a proliferation cyst and not a pseudocyst.

Marsupialization was first undertaken by Gussenbauer, a pupil of Billroth, in 1882, and became the standard procedure for many years. Most patients so treated were cured, but sometimes only after drainage had persisted for many months. In some cases a permanent fistula resulted. In the 33 cases reported by Judd *et alii* (1931), marsupialization was followed by persistent sinuses lasting in a number of cases up to two years.

Sinclair's (1955) first patient treated originally by external drainage suffered from a persistent fistula for two

years and then experienced recurrence of the cyst. Kerr (1918) reported a cyst which drained for 15 years. Auto-digestion of the abdominal wall is not a feature, owing to the low enzyme concentration of the fistulous fluid, but a troublesome and painful complication is excoriation of the skin around the fistula.

In recent years internal drainage has superseded marsupialization, but opinions still differ as to which organ should be selected for anastomosis. There are now numerous reports in the literature of small series of patients successfully treated by internal drainage (Chesterman, 1943; Maske, 1941; Adams and Nishijima, 1946). Ombredanne appears to have been the first to utilize this principle, and in 1911 he anastomosed a cyst to the duodenum. However, this procedure is only technically suitable for cysts located in the head of the pancreas. Further objections are the risk of a duodenal fistula occurring should the anastomosis break down, as well as the possibility of contamination of the cyst by duodenal contents being greater than contamination with either stomach or jejunal contents.

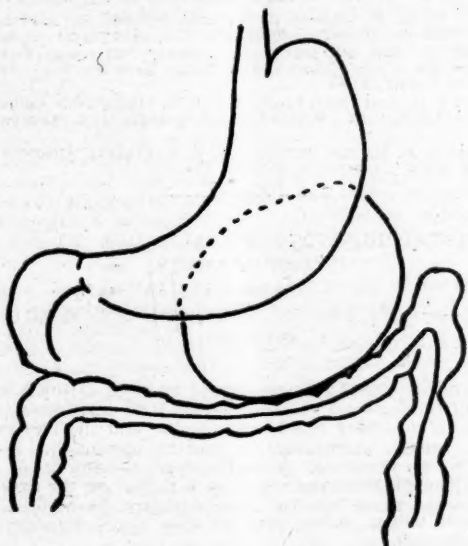


FIGURE I.

Diagram to illustrate the relationship of the pseudocyst to the surrounding organs.

Jedlicka in 1923 reported resecting a major part of the wall of a cyst and anastomosing the remnant to the stomach. Sinclair (1955) strongly advocates cysto-gastrostomy, and makes a plea for utilizing the greater curvature for the anastomosis in order to obtain dependent drainage. Jurasz recommended this procedure in 1931. A considerable proportion of the recorded cases have had the anastomosis performed by the transgastric route merely with a stab incision through the posterior wall of the stomach into the cyst. This procedure is open to the theoretical objection that the stoma might become stenosed or obliterated. Walzel (1927) anastomosed the gall-bladder and cyst, but this procedure has met with little popularity. If the theory of biliary regurgitation into the pancreatic duct system as a cause of pancreatic necrosis has any merit, this procedure seems undesirable.

The safest and most logical operation appears to be cysto-jejunostomy with a complementary entero-anastomosis between afferent and efferent loops. The entero-anastomosis is performed with the object of deflecting jejunal contents away from the anastomosis with the cyst. Probably a better procedure still is the Roux-en-Y anastomosis as advocated by Gurwitz and Hurwitz (1948). It must be borne in mind that the cyst communicates with either the pancreatic duct system or its secreting epithelium.

Therefore internal drainage must be rendered as safe as possible not only in preventing septic complications from food particles and digestive juices from entering the cyst, but also in reducing the possibility of further attacks of pancreatitis by such contamination.

It is interesting to note that post-operative barium studies have consistently failed to produce filling of the cyst whether the anastomosis has been to the stomach or to the jejunum (Jurasz, 1931; Chesterman, 1943; Adams and Nishijima, 1946). The case reported here behaved similarly.

Summary.

1. The incidence and classification of pancreatic cysts are discussed.
2. The aetiology of pseudocysts of the pancreas is explained.
3. The clinical features of pancreatic cysts are enumerated.
4. A case is presented of pancreatic pseudocyst treated by cysto-jejunostomy and complementary entero-anastomosis.
5. The relative merits of external drainage and the various forms of internal drainage are discussed.

References.

- ADAMS, R. and NISHIJIMA, R. A. (1946), "Surgical Treatment of Pancreatic Cysts", *Surg., Gynec. & Obst.*, 83:182.
- BENSON, R. E., and GORDON, N. (1947), "Cystadenoma of the Pancreas", *Surgery*, 2:353.
- BRUNSCHWIG, A. (1942), "The Surgery of Pancreatic Tumours", Mosby, St. Louis.
- CHESTERMAN, J. T. (1943), "Treatment of Pancreatic Cysts", *Brit. J. Surg.*, 30:234.
- CONNOLLY, E. A., and MCGREVEY, E. J. (1954), "Internal Drainage of Pancreatic Cysts", *Am. J. Surg.*, 87:552.
- GURWITZ, J., and HURWITZ, A. (1948), "Treatment of Pancreatic Cysts", *Ann. Surg.*, 128:976.
- JEDLIKA, A. (1923), *Zentralbl. f. Chir.*, 50:132.
- JUDD, E. S., MATTSOHN, H., and MAHORN, H. R. (1931), "Pancreatic Cysts: Report of 47 Cases", *Arch. Surg.*, 22:838.
- JURASZ, A. (1931), "Zur Frage der operativen Behandlung der Pankreascysten", *Arch. f. klin. Chir.*, 164:272.
- KERR, A. A. (1918), "Cysts and Pseudocysts of the Pancreas with Report of Cases", *Surg., Gynec. & Obst.*, 27:40.
- KORTE, W. (1931), quoted by Judd, E. S., Mattson, H., and Mahorner, H. R. (*loc. citato*).
- KOUCKY, I. D., BECK, W. C., and TODD, M. C. (1941), "Perforation of Pancreatic Pseudocysts: Report of Six Cases", *Surg., Gynec. & Obst.*, 73:113.
- MASKE, B. (1941), "Zur Behandlung von Pankreascysten durch Anastomosierung mit dem Magen", *Chirurg.*, 13:573.
- MEYER, K. A., SHERIDAN, A. I., and MURPHY, R. P. (1940), "Pseudocysts of the Pancreas; Report of 31 Cases", *Surg., Gynec. & Obst.*, 88:219.
- PASCUCI, L. M. (1944), "Pancreatic Cysts and Lithiasis", *Am. J. Roentgenol.*, 52:80.
- PAUL, M. (1949), "Pancreatic Cysts", *Brit. J. Surg.*, 37:99.
- SINCLAIR, I. S. R. (1955), "The Treatment of Pancreatic Cysts by Internal Drainage", *Brit. J. Surg.*, 42:367.
- WALZEL, P. (1927), "Innere Drainage einer Pankreascyste unter Ausnutzung des Resorptionsvermögens der Gallenblase", *Mitt. a. d. Grenzgeb. d. Med. u. Chir.*, 40:171.

Reports of Cases.

A SUSPECTED CASE OF FAVISM.

By H. S. MOORE,
Sydney.

FAVISM, so far as is known, has given little cause for attention in Australia. Study of the literature does not reveal a reported case to date in this country. It is known that in some individuals of Mediterranean origin the ingestion of the common broad bean (*Vicia faba*) causes hæmolytic anemia. The anemia produced may be mild, or it may be of such severity that, in the untreated case, death may ensue. Casper and Shulman (1956) have described bilateral cortical necrosis of the kidneys in an

infant intoxicated by its mother's milk. The condition has been described by Whitby and Britton in their textbook, as being an allergic reaction either to the beans or to pollen from their flower. It has been stressed that the ingestion of uncooked beans is the usual cause of the illness. Recently, Surinych (1953, quoted in Casper and Shulman, 1956) has suggested the possibility that the syndrome is not caused by an allergy, but by a true toxin; that a plant agglutinin acts specifically on the erythrocytes, and that the affected persons, because of "constitutional, racial and heredo-familial factors", are hypersensitive to the active component of the bean.

Clinical Record.

A male child aged five years, of Italian parents, was admitted to hospital in November, 1956, in a semi-comatose condition. Jaundice was apparent, with marked circumoral pallor. The rectal temperature was 100.4°F. The child passed blood-stained urine. Owing to language difficulties no clear history could be obtained, apart from the fact that the child became suddenly ill late the previous afternoon, complaining of abdominal pain, with deterioration of his condition during the night until his admission to hospital in the state described.

Transfusion was commenced with 500 millilitres of whole blood of the same group as the child's blood. "Delta Cortef Oral", five milligrammes, was given twice daily. The temperature commenced to fall on the second day, and was normal by the third day. The child's condition improved rapidly. No episode of anuria occurred, and the boy was discharged from hospital seven days later.

Laboratory Findings.

A blood count on his admission to hospital gave the following findings: red blood cells numbered 1,470,000 per cubic millimetre; haemoglobin value was 4.2 grammes per 100 millilitres; colour index was 1.0; white blood cells numbered 5700 per cubic millimetre, of which 80% were neutrophils, 15% lymphocytes, 2% eosinophils, 3% monocytes; there were four late normoblasts per 100 leucocytes counted. In the stained film, the red cells showed marked anisocytosis with polychromasia and many finely stippled red cells.

Other investigations gave the following findings. The total serum bilirubin content was 10 milligrammes per 100 millilitres. The result of the direct Coomb's test was negative. No increase in fragility was noted in the red cell fragility test. No sickling trait was found, nor could a haemolysin be demonstrated at either warm or cold temperatures. The serum showed bands of oxyhaemoglobin diluted 1/8 with 0.85% saline. The urine contained no cells or casts. Bands of oxyhaemoglobin were present on spectroscopic examination at a dilution of 1/50 of the urine.

On the second day the haemoglobin value had risen to 11.2 grammes per 100 millilitres, and it was 14.2 grammes per 100 millilitres on the patient's discharge from hospital. No abnormality of the urine was found.

Discussion.

Owing to the acute nature of the haemolytic process, it was believed that a chemical or toxic factor should be excluded before a diagnosis of Lederer's anaemia was made. The parents were questioned, and found to be market gardeners. It was disclosed that on the afternoon of the onset of the illness, the child had picked and eaten what was described as "many" broad beans. A sample of the beans was later obtained from the father, and it was confirmed that the child had eaten the beans raw, no cooked beans having been eaten. The father stated that the child may also have eaten some of the beans a few days before. Neither the father nor the mother could give a history of a similar effect in childhood after eating broad beans. The beans were subsequently identified as the common broad bean (*Vicia faba*) which is widely grown in New South Wales.

Whilst other acute haemolytic types of anaemia could not be entirely excluded, there is strong evidence that the ingestion of the beans was a likely cause of the haemolytic

process. It is thought that, with an increase in the migrants of Mediterranean origin, further cases of acute haemolytic anaemia may occur after the ingestion of uncooked beans.

Acknowledgements.

My thanks are due to Dr. A. Callose for making available the clinical notes of the case, and to Mr. D. Graham, technician in charge of the laboratory at Ryde District Soldiers' Memorial Hospital, for carrying out the technical work in the investigation; also to officers of the New South Wales Department of Agriculture who identified the beans.

Addendum.

While this paper was in the press, a report of a case of favism in Western Australia has been published by Brooks, James and Stubber (1958). Also, my attention has been drawn to the letter from J. D. Harley and Lorimer Dods (1957), reporting a case which they suspected to be one of favism, in a Greek boy, published in this Journal 12 months ago.

References.

- BROOKS, E. A. V., JAMES, G. A., and STUBBER, L. A. (1958), "Favism in Western Australia", *M. J. AUSTRALIA*, 2: 455.
CASPER, J., and SHULMAN, J. (1956), "Bilateral Cortical Necrosis of the Kidneys in an Infant with Favism", *Am. J. Clin. Path.*, 26: 42.
HARLEY, J. D., and DODS, LORIMER (1957), "Haemolysis following the ingestion of Uncooked Broad Beans", *M. J. AUSTRALIA*, 2: 561.
WHITBY, L. E. H., and BRITTON, C. E. J. (1956), "Disorders of the Blood", Churchill, London, 320.

ERYTHROBLASTOSIS FETALIS DUE TO O-A INCOMPATIBILITY.

By J. GRANTLEY SHELTON, M.B.E., M.B., B.S., M.R.C.O.G.,
Melbourne.

ERYTHROBLASTOSIS FETALIS caused by blood factor A or B is in all fundamental respects the same as erythroblastosis caused by any other blood group factor, and the treatment is the same. According to present opinion in North America, it comprises approximately two-thirds of all cases. Though these cases are much milder on the average than those caused by Rh incompatibility, kernicterus in untreated babies is so frequent that early diagnosis is very important.

The principal diagnostic feature is early jaundice (visible jaundice before twenty-four hours). Unless early jaundice is noticed the diagnosis is seldom made, since no ante-natal tests appear at present to be worth doing, and anaemia is seldom noticed. Physiological jaundice should never be suggested as a possible diagnosis in an infant under twenty-four hours of age. Jaundice of prematurity does not usually appear until about the third day of life. Diagnosis can be made early only by constant watchfulness by nursing personnel for the early appearance of jaundice. Once the nurses and attendants are taught that jaundice in the first day of life is a sign of the gravest importance, to be reported immediately to the obstetrician, they will look for it. They should be shown how to blanch the skin on the forehead by finger pressure, and to see the jaundice, if it is present, before the blood rushes back into the skin. The bell of the stethoscope is used by some paediatricians to blanch the skin. The chest and nape of the neck are other favourite areas for testing. Jaundice is never present at birth, and can seldom be seen in the sclerae during the first day or two. The face, chest and back become jaundiced much more quickly than the arms and legs. The urine is not usually jaundiced in erythroblastosis in the first twenty-four hours.

Once the diagnosis is suspected by the obstetrician on the basis of early jaundice, it is his responsibility to see that special paediatric care is organized. The diagnosis should be confirmed by physical examination—by the presence of isohaemolysins in the mother's serum, the Coombs test (which usually gives a negative result in

these cases) and an elevated serum bilirubin level. The height of the serum bilirubin level is the usual guide to the necessity for exchange transfusions, although the age of the infant in hours at which jaundice was first noticed is used by some paediatricians as the chief indication that the erythroblastosis is severe enough to require exchange transfusion.

Erythroblastosis caused by A or B factor seldom results in severe anaemia, and for this reason is said never to cause stillbirth. Kernicterus occurs in about 10% of all cases of erythroblastosis due to A or B incompatibility, if no treatment is given, and constitutes the only serious hazard in this group of babies. Turner (1954) confirmed this fact when she reviewed 44 cases of erythroblastosis foetalis due to anti-A. Treatment with exchange transfusion was required by four babies who developed early and severe jaundice. The relation of kernicterus to hyperbilirubinemia is the same as in Rh erythroblastosis. Prevention of kernicterus is accomplished by exchange transfusion with type O blood having low anti-A and anti-B titres and free of haemolysins, repeated as necessary to keep the serum bilirubin level below 20 milligrammes per 100 millilitres in full-term infants, and below 18 milligrammes per 100 millilitres in premature infants. Erythroblastosis can be caused by blood factors other than Rh, A or B. Combined, these rare blood factors are said by Allen and Diamond to cause approximately 2% of all cases of erythroblastosis.

The following is a brief case report of a patient delivered in March, 1958, at Mercy Hospital, East Melbourne. The mother was a primigravida who had had an uneventful pregnancy and who, before delivery, was known to have group O, Rh positive blood; she produced a full-term male infant who developed severe erythroblastosis foetalis.

Clinical Record.

Mrs. A., aged 24 years, was admitted to the delivery floor in labour at term, and was delivered by forceps of a male infant whose birth weight was 10 pounds five ounces. During pregnancy the mother—who was a tall heavily built woman with an initial weight of 154 pounds—had put on a total of 28 pounds, 20 pounds of this between 20 weeks and term. Her pregnancy had otherwise been normal.

The infant cried immediately after delivery, appeared vigorous and was transferred to the nursery as a normal infant. When seen at 12 hours by a consulting paediatric physician, he showed mild jaundice. This had been suspected by the nursery staff a few hours beforehand. The liver appeared normal in size, and the spleen was just palpable; the blood group was A2, Rh positive; the haemoglobin value was 146%; the Coombs test gave a negative result. On putting up the mother's serum against the baby's red blood cells, haemolysis was found to be present in the maternal serum. The following day the jaundice was much more marked. At 36 hours it was decided to do an exchange transfusion; 900 millilitres of fresh type O blood were withdrawn and replaced and were well tolerated. Next day (day three) the jaundice was fading and the serum bilirubin level was seven milligrammes per 100 millilitres (indirect reacting serum bilirubin). The jaundice continued to fade, and by the eighth day had disappeared. On the ninth day the haemoglobin value was 120%. The baby progressed satisfactorily, and on the eighteenth day he had a haemoglobin value of 99%, was being breast fed and was thriving. When last seen he was six weeks old and appeared to be a normal infant.

Conclusion.

In recent years obstetricians have become extremely conscious of their responsibility to the mother whom they know to be Rh negative. Erythroblastosis foetalis in the offspring is always a possibility, and therefore most of these babies nowadays are carefully observed for jaundice in the first day of life. In most hospitals it is routine to collect the cord blood of such mothers, even when no antibodies have been detected during the ante-natal period. Erythroblastosis foetalis can also be caused by other blood factors, particularly by A or B when the mother is type O.

Anti-A is more potent in the serum of type O persons than it is in persons of type B. If a baby develops erythroblastosis due to anti-A, the mother is almost always type O, very seldom type B. It is therefore advisable to collect cord blood from all mothers with type O blood, and to observe the offspring carefully for the onset of jaundice within the first day of life.

Acknowledgement.

I am greatly indebted to the consulting paediatrician in this case, Dr. Kate Campbell, for assistance in presenting it. Her other comment about the baby was that although he was big he did not look like the offspring of a pre-diabetic mother.

Bibliography.

- DIAMOND, L. K., ALLEN, F. H. and VAUGHAN, V. C. (1950), "Erythroblastosis Foetalis: Further Observations of Kernicterus", *Pediatrics*, 6: 706.
DIAMOND, L. K., and ALLEN, F. H. (1957), "Erythroblastosis Foetalis", *New England J. Med.*, 257: 705.
DIAMOND, L. K., and ALLEN, F. H. (1957), "Erythroblastosis Foetalis", *New England J. Med.*, 257: 761.
CAMPELL, K. I. (1955), "Foetal Erythroblastosis", *M. J. AUSTRALIA*, 11: 116.
SHELTON, J. G. (1955), "The Problem of the Iso-Immunized Rh-Negative Mother", *M. J. AUSTRALIA*, 2: 113.
TURNER, E. K. (1954), "ABO Blood Groups and Foetal Erythroblastosis", *M. J. AUSTRALIA*, 2: 340.

Reviews.

Skin Grafting. By James Barret Brown, M.D., and Frank McDowell, M.D.; Third Edition; 1958. Philadelphia and Montreal: J. B. Lippincott Company. Sydney: Angus and Robertson, Limited. 10" x 6½", pp. 427, with 328 figures and six colour plates. Price: £8 5s.

This book, formerly titled "Skin Grafting of Burns", has been enlarged and its scope greatly extended; nevertheless, the authors remain acutely burn-conscious, a not surprising attitude in view of the statements that 875,000 hospital bed days are occupied annually in England, and that the preponderance of all skin grafting is done for burns.

Rational reasons are given for changing routine forms of treatment. Blood transfusions, combined with equal quantities of electrolyte solutions, are recommended instead of plasma for extensive fluid loss in burns. Tubed pedicles are frowned upon because of the risk of interfering with blood supply. Instead, one is advised that tubed pedicles be used only partly formed, if at all, and the deep surface of the flap be covered with a split thickness graft. Some interesting techniques are described—e.g., a method of making skin grafts adhere to the dermatome drum in a manner which will allow of their being stripped without their remaining sticky.

Because of multiple sectional chapters, repetition is inevitable, but seldom is its frequency irritating. One apparent contradiction is that one is advised to avoid strong chemical solutions in skin grafting, and yet later to use 1% tincture of iodine to clean recipient and donor areas. The section on treatment of keloid proves the only disappointment in the book. The method of irradiation practically at the time of excision and split thickness grafting is not mentioned.

Obviously the authors write from vast experience, and this book bears the stamp of authority. When their teaching counters current thought, weighty reasons are given for changes. A point of special merit is that the copious illustrations are skillfully placed close to their context. It can be recommended equally to advanced students and to all practising plastic surgeons.

Clinical Obstetrics and Gynecology. Volume I, Number 1: "Medical Problems in Pregnancy", edited by Curtis J. Lund, M.D.; "Management of Endocrine Problems", edited by Allan C. Barnes, M.D.; 1958. New York: Paul B. Hoeber, Inc., Medical Book Department of Harper and Brothers. 9½" x 6", pp. 288, with 33 illustrations. Price not stated.

THE reader of the first number of this Quarterly Book Series should find delight and reward in the twenty-odd contributions which have been collected by the two guest editors. Professor Lund has edited the symposium on medical problems in pregnancy, and Professor Barnes that on management of endocrine problems. Each has chosen a

team of well-known clinical teachers from leading centres, chiefly in the United States. The articles produced are something of the nature of post-graduate lectures, and bear the stamp of experience and authority. They are carefully written, contain neither humbug nor packing, and, being clinical and essentially practical, are figuratively "full of meat".

Professor Holly, of Omaha, writes the chapter on anaemia in pregnancy, and Professor Bradbury, of the University of Iowa, that on the adrenogenital syndrome and adrenal hyperplasia; these are two outstandingly good articles. Holly insists on investigation adequate for the diagnosis of the type of anaemia found in pregnancy, proves mathematically the advantage of iron supplement to all patients, and deprecates the transfusion of whole-blood unless for emergencies or when accepted haematincs fail. Bradbury's excellent illustrations on adrenal cortical dysfunction greatly facilitate the understanding of a somewhat complex subject.

McKelvey writes on tuberculosis and pregnancy, and for the die-hards furnishes convincing evidence that therapeutic abortion no longer holds any place in its management. Lund contributes the chapter on heart disease and pregnancy. He shows how results are greatly improved as a result of close liaison between physician and obstetrician throughout pregnancy. He points out that labour should not be induced, that Caesarean section has no place in the routine management, and that therapeutic termination is rarely, if ever, indicated.

A useful chapter by Rothchild covers the field of diagnostic aids, both clinical and biochemical, available for the elucidation of endocrine problems. Diabetes, urinary tract infections, thyroid dysfunction, and ovarian dysfunction are other subjects well treated, each by an expert in the field.

The publishers are to be congratulated on this "new kind of literature", a quarterly issue comprising two symposia, one obstetrical and the other gynaecological. Several future guest editors are mentioned, and one looks forward to the appearance of further volumes. This is a series to be recommended to all practising obstetricians and gynaecologists.

The Practice of Infectious Disease. By Louis Weinstein, Ph.D., M.D.; 1958. New York: Landsberger Medical Books, Inc. 12" x 5", pp. 512. Price not stated.

This book covers a much larger field than is usual in works with similar titles. It includes sections on infections of the eye, nasal sinuses, urinary tract and skin, and also a chapter on tuberculosis. Because of the wide field covered, some sections inevitably have been dealt with more briefly than their importance would seem to warrant. Older practitioners will probably be surprised to find only seven pages on diphtheria, five on typhoid and two on the post-infectious encephalitis in a book of 500 pages on infectious diseases.

A chapter on the principles of treatment by the antibiotics is well done, and the "many misuses of chemotherapy" are outlined and stressed. Viral hepatitis is covered comprehensively. Dr. Weinstein is opposed to cortisone therapy in the early stages of this condition, as it "may provoke dissemination of the infective agent". He thinks it should be "reserved for patients with overwhelming disease", but that "then it may be life-saving". He thinks strict diet and prolonged rest are not so necessary as has been thought in the past.

In infections of the nervous system he includes a new disease, "benign myalgic encephalomyelitis". Its description somewhat resembles a condition which has often been diagnosed locally as viral myositis.

Although this book could not be described as an essential in a general practitioner's library, it would certainly be quite useful for reference in the diagnosis and treatment of any infectious disease.

The Tissues of the Body: An Introduction to the Study of Anatomy. By W. E. Le Gros Clark, F.R.S.; Fourth Edition; 1958. Melbourne: Oxford University Press. 9½" x 5½", pp. 426, with 126 illustrations. Price: 64s. 6d.

It is the belief of the author of this book that the study of anatomy should start with an examination of the tissues, and that while such an introduction must necessarily present known facts in a simple fashion, it should, nevertheless, contain sufficient information on recent advances to stimulate a continuing interest and desire to learn more. In this most teachers of anatomy will concur; at the same time, it may be over-optimistic to expect the students to concur likewise. Taken by and large, students have a pretty heavy burden to carry, and the majority will regard a straightforward course in histology—without such additions as this work offers—as

an adequate concession towards the yet distant qualification to practise medicine. It is a great pity that more students cannot look back from, rather than towards, the end result: then the prospects of inducing more of them to explore some of the paths outlined here would be considerably brighter. However, so long as the objective of students is set no higher than a qualification in clinical technology, so long will books of this sort fail to receive the recognition they deserve.

The volume under review follows the plan of previous editions in considering the elements of the various systems from the point of view of histology, embryology, function and comparative anatomy. In most cases the discussions are exceedingly broad and interesting, and there are sufficient references for further reading. The illustrations, too, are generally very good and include electron photomicrographs. Strangely enough, the genital and urinary systems are accorded only the most casual mention, despite excellent recent work, including electron microscopy of the glomerulus. On the other hand, the large amount of space given to the nervous system, while it reflects the author's main interest, appears to us to upset the balance of the work as a whole. Other minor criticisms might be voiced, but they do not detract much from the over-all value of the book, which can be read with profit by anyone interested in anatomy. As is usual with the Clarendon Press, the presentation is excellent.

Foundations of Neuropsychiatry. By Stanley Cobb, A.B., M.D., Sc.D.; Sixth Revised and Enlarged Edition; 1958. Baltimore: The Williams and Wilkins Company. 9" x 5½", pp. 324, with illustrations. Price: 55s. (abroad).

The title suggests that this work is designed to provide a basis of neurology for psychiatrists. It gives very condensed summaries of neuroanatomy, neurophysiology, neuropathology, clinical neurology and even some psychiatry. Within such a small compass these summaries are necessarily so sketchy that they risk being a source of irritation to readers versed in the various disciplines. Regrettably, several errors—e.g., the idea of an "old motor system" residing in the basal nuclei and the proportion of Betz cell fibres in the pyramidal tracts—are perpetuated from previous editions. The section on the blood supply to the brain is merely cursory, as are the chapters on psychology and psychopathology. In view of the author's main interest it is perhaps not unexpected that more space should be given to general and special neuropathology, but to the psychiatrist these are no more valuable than any of the other sections. As a synthesis the work as a whole is too condensed and generalized to achieve its objective satisfactorily—in our view, at least—but we have previously remarked upon how little neurology seems to be necessary for psychiatrists in America, so we may be biased. In the past ten years the book has expanded by some forty pages, but the price has trebled.

Principles of Research in Biology and Medicine. By Dwight J. Ingle, B.S., M.S., Ph.D.; 1958. Philadelphia, Montreal: J. B. Lippincott Company. Sydney: Angus and Robertson, Limited. 9" x 5½". Price: 52s. 3d.

HERE is a book in which the limitations of the human mind and the possibilities of error in drawing conclusions both in the laboratory and at the bedside are set out succinctly and in detail. Much thought and wide experience have obviously been given to the writing of this volume. It is possible that some readers may resent the inclusion of gross logical fallacies which they feel the veriest tiro in scientific research and clinical medicine could not perpetrate, but it was wise to make the lists complete even though there is amongst the themes discussed a disparity in frequency or importance. The exposition is relieved by humorous exaggerations which Americans use so well. For instance, the author imagines an investigator into Scotch and soda, rye and soda and bourbon and soda coming to the conclusion that it is the soda water which intoxicates.

Here are some pithy sentences chosen out of many: "Self teaching of statistics is seldom adequate." "Only a few ideas which represent creative thinking are derived by the conscious application of the processes of logic. Logic is more often applied in the proof of the idea after it has been formed." "When a function disappears upon removal of an organ, it is unsafe to conclude that it was a function of that organ." "The field of extrasensory perception has had more than its share of flummery."

It may be remarked here that modern medicine is characterized by an ever-increasing resort to placebos as control checks. This is evidence of a growing recognition of the possibilities of logical error and the value of logical proof.

There is an excellent analysis of the motives which actuate a young researcher and the difficulties and frustrations which sometimes beset him. Either the author is himself unmarried or has given little thought to the married state. Many a bright researcher has had his happiness bedevilled by the financial and social needs of a wife and growing family, but of this there is no mention.

The Interference Microscope in Biological Research. By Arthur J. Hale, M.B., Ch.B., Ph.D.; 1958. Edinburgh and London: E. and S. Livingstone, Limited. 8½" x 5", pp. 128, with many illustrations. Price: 20s.

This book provides the biological worker with simple and useful background knowledge of interference microscopy so that he may make the most effective use of this physical tool in cytological studies. The first chapter gives some elementary physical principles in interferometry. Chapters follow on the optical principles in the main types of interference microscopes used in biological work, and on the interpretation of the observed interference patterns. A fairly detailed chapter describes the use and performance of several well-known interference microscopes, and the derivation of quantities like the volume, dry mass and refractive index of specimens is discussed. The concluding chapter deals with some sources of error in measurements. An appendix covers some elementary theory on optics and some numerical examples.

There is a very satisfactory coverage of the most recent developments in interference microscopes. There is some confusion in the text between optical path retardation due to a specimen and the optical thickness of a specimen. For example, in discussing multiple-beam systems it is stated that the distance between successive bands represents a path difference of $\lambda/2$. A displacement of one band spacing represents a change in optical thickness of the specimen of $\lambda/2$, but the path difference change is λ . Clearer distinction should have been made between interference microscopes, in which the specimen is part of an interferometer, in that the interfering wave-fronts originate at one or both of the specimen surfaces, and the microscopes normally used in biological work, in which the specimen is inserted into an interferometer and causes a shift in the interference fringes which already exist. For example, the error in measurement due to oblique rays is of the same order of magnitude in the two types (about 10% for N.A. = 0.6), but in one type the error is positive and in the other negative. In referring to both types the author should have made this clear.

There are some minor errors in the text and figures, but generally the illustrations are clear and relevant. The use of roman numerals to identify equations is undesirable and not in conformity with modern practice.

Pediatric Surgery. By Orvar Swenson; 1958. New York: Appleton-Century-Crofts, Inc. 10" x 6½", pp. 754, with many illustrations. Price: \$20.00.

This long awaited text-book on "Pediatric Surgery" by Orvar Swenson will attract a great deal of attention and respect. It is notable for the painstaking attention to detail so characteristic of this surgeon. The text is easy to follow, and one can obtain up-to-date information and advice on most aspects of paediatric surgery and its performance. However, neurosurgery and orthopaedics are omitted, and only fifteen pages are allotted to fractures.

As one would expect, the chapters on Hirschsprung's disease are particularly well done and beautifully illustrated. A preliminary colostomy is recommended for all babies under one year and for older children in poor condition. Resection is postponed until the infant weighs at least 30 pounds. The hazards of a complicating entero-colitis are stressed. The description of replacement of the aperistaltic megaloureter with a narrowed segment of ileum is exciting. It is consoling to read that only 5% of children with congenital atresia of the bile duct have a correctable lesion. Despite this, surgical exploration is always justified at the age of four to six weeks, and an operative cholangiogram is helpful in outlining the anatomical arrangement. Surgery is recommended as the safest form of treatment for intussusception present for over twenty-four hours. Rectal and urological anomalies are adequately described. There is no mention of the Lowesly procedure.

One soon gets the impression that this book is a practical written demonstration of the author's own experience, and that every step of a procedure described has been previously carefully worked out. References at the end of each chapter are adequate, and many spaces are left in the text presumably for notes. The book is so lavishly illustrated that its cost may preclude general ownership. Nevertheless, it will

take its place as a reference book in every paediatric library and will be a haven to many surgeons, both general and paediatric. It is planned to supplement rather than to duplicate volumes on general adult surgery.

Tracheotomy: A Clinical and Experimental Study. By Thomas G. Nelson, Major, M.C., U.S.A.R.; 1958. Baltimore: The Williams and Wilkins Company. 10" x 6½", pp. 118, with 47 illustrations. Price: 41s. 3d.

This small book presents an historical, clinical and experimental investigation of tracheotomy. A detailed clinical analysis of 310 tracheotomies is given, and the author also bases his opinions on his own extensive clinical experience in the operation.

The study shows clearly not only the increased use of the operation for the relief of classical mechanical laryngeal obstruction, but also the much greater proportional increase in usage for cases of "secretional" obstruction. Its application thus covers a wide variety of diseases in which pooling of secretions in the respiratory tract causes prolonged anoxia. The author writes: "In secretional obstruction the operation permits easy aspiration of secretions and also permits the administration of high concentrations of oxygen directly into the respiratory passages. In addition it bypasses the larynx, and by diminishing the amount of dead air space decreases the respiratory effort. Contrary to previous belief, it has been found that tracheotomy does not increase the amount of nursing care required for the patient."

Anyone who has had experience of the wide application of tracheotomy will agree wholeheartedly with these opinions. The author then goes on to deal with the technique of the operation and bases his findings on an analysis of 310 cases of tracheotomy as well as on an experimental study in dogs. He recommends a technique based on these clinical, anatomical and experimental studies, the details of which will be a surprise to many. He advocates a transverse skin incision, division rather than retraction of the thyroid isthmus, and excision of a piece of the anterior tracheal wall. He proceeds to demonstrate that the usual technique of tracheotomy consisting of a vertical skin incision and vertical incision into the trachea has several disadvantages.

There are many who will disagree with these findings, particularly those who deal mainly with young children, in whom the actual operation itself may produce so many more difficulties than in adults. It is admitted by the author that the length of time the cannula is worn is responsible in most cases for unsightly scarring of the skin, and that this can occur even when a transverse incision is used. His arguments in favour of division of the thyroid isthmus are not very convincing, and most people would see no need to change from the method of retracting the isthmus and opening above it. Lastly, excision of the anterior wall of the trachea is not an easy matter for the inexperienced operator, and there is a danger of the excised piece falling into the trachea.

The importance of post-operative care is rightly stressed. In addition to the more commonly used methods for keeping the secretions in the trachea fluid and easy to aspirate, the author advocates the use of trypsin for instilling into the trachea.

The book is small, but contains a considerable amount of information concerning all facets of the uses of the operation of tracheotomy. It should find a place in all hospitals and in all reference libraries.

The Chemistry and Chemotherapy of Tuberculosis. By Esmond R. Long, M.D., Ph.D., Sc.D.; Third Edition; 1958. Baltimore: The Williams and Wilkins Company. 9" x 6", pp. 474, with illustrations. Price: £6 12s.

The first edition of this book appeared in 1923. The third edition, with Esmond Long as the sole surviving author, has necessarily been almost entirely rewritten. Dr. Long needs no introduction in the world of tuberculosis research, and he has succeeded in producing here a well-documented account of existing knowledge in regard to the chemistry of tuberculosis and its treatment.

This publication is most timely, as the emphasis on the treatment of tuberculosis appears to be shifting to a pre-occupation with the study of the behaviour of the tubercle bacillus itself. At first sight its contents appear rather formidable, but actually Dr. Long has presented quite simply subjects that could be most complex.

The book is divided into three sections, preserving a pattern that has been followed in each edition. In the first section the structure, chemical composition and growth

habits of the tubercle bacillus are discussed, also the roles played by the individual components of the bacillus. Hypersensitivity, antigen-antibody reactions and immunity are considered rather briefly, but the chapter on culture filtrates is rather more adequately presented. The second section is concerned with chemical changes in the tuberculous host, the chapter on tuberculous tissue being almost entirely devoted to a study of caseation. The chapters on non-tuberculous tissues, however, present an excellent picture of the chemical changes in blood, cerebro-spinal fluid and pleural effusions, etc., sputum and urine. Nutritional, constitutional and hormonal factors are also analysed in this section. The final section deals with the chemotherapy of tuberculosis and briefly reviews progress up to the present day. The chemistry and possible mode of action of standard drugs are analysed, and drug resistance and toxicity are also considered in each case. Several important modifications of treatment, however, such as the greater therapeutic effect of higher single doses of streptomycin and INH and the necessity to use a three-drug chemotherapy regime while awaiting drug-sensitivity studies, are not stressed.

Dr. Long concludes with an excellent recapitulation, in which he asks a most pertinent question, which all tuberculosis physicians could well ask themselves: "Is sufficient advantage being taken of the known facts of the tubercle bacillus and tuberculous processes to aid in the development of improved methods of treatment?"

This book should be read chapter by chapter by every physician who professes to treat tuberculosis in children or adults. It will not tell them what regimes of any drugs should be used, or indeed what drugs should be employed, but it will tell them something about the tubercle bacillus and the reactions of the host to its invasion, and also something about the modes of action of the various drugs at their disposal. If such knowledge can be combined with their clinical experience of tuberculosis, then we may see what is so sadly lacking today, rational as opposed to empirical treatment of this disease.

Food for Better Performance. By R. C. Hutchinson, D.Sc.; 1958. Victoria: Melbourne University Press. 7½" x 4", pp. 116. Price: 13s. 6d.

There are many small books on nutrition which are more or less adequate. A new approach is given by R. C. Hutchinson in this book. In 100 pages there is a very good account of food requirements for health, methods of food utilization in the human body, energy requirements of the body and physical and mental activity in relation to food intake. There is a very good section on the basis for correcting body weight when it is too great or not great enough. Simple diets are given, which should be as effective as any of the elaborate diets set forth in other books. Finally, there is a chapter on a desirable feeding pattern which sets out sensible distribution of food intake for the three main meals.

This is an excellent little book which could, with advantage to the people of Australia, have a very wide distribution. It could, with profit, be read by all who have to do with the sports training of boys and girls.

Cardiac Problems for Chest Physicians: An NAPT Symposium. 1958. London: National Association for the Prevention of Tuberculosis. 8" x 5", pp. 40, with illustrations. Price: 5s.

This booklet records seven brief talks given in a symposium on this subject held in London in December, 1957. The title, at least in this country, is a little misleading, for Australian chest physicians in the main are not so specialized as to be unaware of most of the cardiac problems discussed. On the other hand, it is sound and easy reading for those less closely connected with this field, for general practitioners (all the problems discussed are common ones) and perhaps for post-graduate students seeking a rapid survey of current views. The enforced brevity of the individual essays largely disarms criticism, but Aubrey Leatham's discussion of the differential diagnosis of cardiac and respiratory disease and Wallace Bridgen's essay on therapeutics would have benefited from some expansion before publication. Ronald Gibson's account of the radiology of the heart and Samuel Oram's summary of heart failure in chronic cor pulmonale are simple and concise and are probably the most useful of the series. The chapter heading "The Assessment of Cardiorespiratory Function" is a gross misnomer, as only the assessment of ventilatory capacity is described; this is simply done.

The omission of mention of the diagnostic significance of blood gas analysis is open to criticism. As in the recent

companion booklet on chronic bronchitis, no references are given; again, in such a short booklet a selected bibliography would appear to be all the more valuable.

It must be open to question not so much whether it is worth publishing less than a thousand words by half a dozen authorities on half a dozen subjects, but whether it would not be worth a great deal more to allow them somewhat greater scope.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"The Acute Abdomen", by William Requarth, M.D.; Second Edition; 1958. Chicago: The Year Book Publishers, Incorporated. Melbourne: Ramsay's Medical Books. 7½" x 5½", pp. 120, with 89 illustrations. Price: £3 11s. 6d.

The author is Clinical Assistant Professor of Surgery, University of Illinois College of Medicine.

"A Manual of Reflection Oximetry and Some Other Applications of Reflection Photometry", by W. G. Zijlstra, M.D.; 1957. Netherlands: Van Gorcum's Medical Library Nr 152. 9½" x 6", pp. 134, with 86 illustrations. Price: Hfl. 17.50, U.S. \$4.75.

A small text-book of reflection oximetry containing concise operating directions as well as theoretical considerations.

"The Diet of Mothers and Children on the Island of Guam", by Sheila H. Malcolm; South Pacific Commission Technical Paper No. 113; 1958. Noumea, New Caledonia: South Pacific Commission. 10" x 7½", pp. 36, with many illustrations. Price: 2s.

The results of a survey carried out by a dietitian-nutritionist in the Food and Agriculture Organization, on assignment to the South Pacific Commission.

"System of Ophthalmology", edited by Sir Stewart Duke-Elder, G.C.V.O., M.A., LL.D., Ph.D., D.Sc., M.D., D.M., F.R.C.S., F.R.C.S.E., F.A.C.S., F.R.A.C.S.; 1958. "The Eye in Evolution", Volume I, London: Henry Kimpton. 9½" x 6½", pp. 860, with 902 illustrations, 15 coloured plates and 350 marginal illustrations. Price: 126s. (English).

The first volume of a projected 15-volume system based on Duke-Elder's "Textbook of Ophthalmology".

"Progress in Cardiovascular Diseases", edited by Charles K. Friedberg, M.D. Volume I, Number 1, "Progress in Cardiac Surgery". 1958. New York: Grune and Stratton, Incorporated. 10" x 6", pp. 122, with many illustrations. Price not stated.

The first number of a new quarterly publication intended to contribute to post-graduate education.

"The Incurable Wound and Further Narratives of Medical Detection", by Berton Roueché; 1958. London: Victor Gollancz, Limited. 7½" x 4½", pp. 178. Price: 20s. 6d.

Six skilfully written articles on unusual aspects of medicine.

"Metabolic Disturbances in Clinical Medicine", edited by G. A. Smart, B.Sc., M.D., F.R.C.P.; 1958. London: J. and A. Churchill, Limited. 9½" x 5½", pp. 368, with 35 illustrations. Price: 45s. (English).

The aim has been "to describe for the practising clinician some of the more important of those disturbances of metabolism which he may encounter in the course of his work".

"British Empire Cancer Campaign: Thirty-Fifth Annual Report Covering the Year 1957"; Part 1. The Chairman's Statement and the Accounts of the Central Organization. London: British Empire Cancer Campaign. 9½" x 7", pp. 40. Price not stated.

"British Empire Cancer Campaign: Thirty-Fifth Annual Report, 1957"; Part 2. "The Scientific Report of the Researches Undertaken by the Central Organization and its Autonomous Councils in the United Kingdom and by Some of its Affiliated Organizations Overseas." London: British Empire Cancer Campaign. 9½" x 7", pp. 550. Price not stated.

The Medical Journal of Australia

SATURDAY, NOVEMBER 29, 1958.

DOCTOR LIVINGSTONE.

DAVID LIVINGSTONE, like many another Victorian figure and institution, suffered at the hands of his admirers. The cloying sentiments and uncritical praise of his contemporaries might well have fossilized him into a nineteenth-century museum piece with as much appeal to our day as the Albert Memorial. It is a mark of his greatness that he escaped this. Today, eighty-five years after his death, he is still the subject of lively interest, and books are still appearing with something new to say about him. One of the latest of these¹ is of special interest in that it presents primarily the medical aspects of Livingstone's life and work, as interpreted by Michael Gelfand, a medical man with a special interest in Africa. His book forms an important modern trilogy with two others recently published: one of these² provides for the first time, in one volume of moderate size, and in Livingstone's own words, an account of the travels that made him famous; the other is a comprehensive biography by George Seaver,³ who has aimed as far as possible to allow the subject of the book to tell his own story in his own way. Seaver states that the literature upon Livingstone is already enormous; a list of books about him compiled in 1947 numbered 198, and this is still being added to. One reason for the continued interest and new publications is the fact that much material of first-hand value, especially a host of unpublished letters, has recently been made available. Another reason, probably the most important, is that Livingstone was a man of rich and complex character, who challenges alike the scholar and the man of action. Not that there was anything consciously subtle about him; he had only one expressed purpose in life—to be "a missionary, heart and soul". But the vision, the drive and the obstinacy which, for some people at least, made him difficult to get on with, these also impelled him to greatness; so that his would-be biographer is faced with the portrayal (in George Seaver's words) of "an evangelist, physician, colonial statesman, linguist and anthropologist, geographer and scientist, as well as one for whom religion was the *leit-motiv* of life". He left his mark on the history and geography of Africa and contributed more than he was to know to the healing of Africa's "running sore", the slave trade; yet, as Gelfand quite fairly puts it, he was "not an expert explorer, but rather a wandering missionary and doctor, with an obsessional make-up, always on the look out for that healthy

mission site on which he was never himself destined to settle".

What sort of a doctor was Livingstone? Gelfand quotes freely from his journals, letters and other writings, and so shows at first hand what Livingstone thought and did about medicine. It is a striking record. As Gelfand points out, when Livingstone qualified in 1840 the practice of medicine had few of the features which characterize it today. Nevertheless, he was imbued with the true scientific approach, an attitude which was then penetrating medicine from the physical and biological sciences. Medicine in the eighteenth century had had its great figures, and much progress had been made in scientific and medical thinking; yet medical practice retained much of the atmosphere of earlier centuries, and charlatanism and a series of curious "systems" held it back. By Livingstone's day the climate of thought had changed and to some extent become settled, so that, in Gelfand's words, he was "a disciple of the philosophy of positivism which sought the laws that rule phenomena and was based on objective evidence". He received his medical training first in Glasgow and later in London at Charing Cross and Moorfields Hospitals, but had to return to Glasgow for his final examinations. In November, 1840, he qualified as a Licentiate of the Royal Faculty of Physicians and Surgeons (Glasgow). It is interesting to note that he nearly failed in his examination because of what he described as "a slight difference of opinion" between himself and his examiners on the value of the stethoscope. To his credit he defended this new instrument against his conservative seniors, but many an examinee will smile sympathetically at his comment made some years later: "The wiser plan would have been to have had no opinion of my own." However, his entry to the medical profession caused him "unfeigned delight", and he set off on his life's work without delay, sailing for Cape Town in early December as a missionary of the London Missionary Society. The Society had ideas of sending him elsewhere, but a medical man was needed in South Africa, and Livingstone was granted his express wish to go there largely because of his medical diploma. Gelfand comments: "It is reasonable to argue that had he not had a medical diploma Livingstone would never have been sent to Africa, and the whole course of history in Central Africa would have been different."

In Africa, Livingstone's medical training, Gelfand tells us, served him well.

It taught him the importance of judging objectively, and of expressing an opinion based on his own personal observations. Although he realized he was dealing with a primitive people he did not summarily dismiss their customs, practices and beliefs as being ridiculous and nonsensical. He was tolerant as well as observant, and displayed the interest of a true research worker in all matters pertaining to Africa. He never scoffed at the witch-doctors. On the contrary, he constantly requested them to reveal their remedies, and underwent trials himself with the different herbs that they claimed would have an effect on malaria.

This attitude also had a considerable diplomatic value, and Livingstone records that he always remained on the best terms with the "regular practitioners". At the same time his own medical knowledge gained for him great esteem amongst the Africans in general and was the means of winning over more than one chief to his cause. He acknowledges that his medical training taught him to be cautious, and it is apparent that this developed into frank

¹ "Livingstone The Doctor: His Life and Travels", by Michael Gelfand, O.B.E., M.D., F.R.C.P., with a foreword by C. Hely-Hutchinson; 1957. Oxford: Basil Blackwell. 8½" x 5½", pp. 155, with 19 illustrations and four maps. Price: 62s. 6d. (English).

² "Livingstone's Travels", edited by James I. Macnair, 1954, Dent, London.

³ "David Livingstone: His Life and Letters", by George Seaver, 1957, Lutterworth Press, London.

obstinacy on more than one occasion, not only in medical matters, but in relation to other projects. This, linked with what Gelfand describes as an obsessional tendency, which made him often repeat a trial several times, long after the answer would have been clear to an ordinary person, must have made him trying to his companions at times, but without it he would probably have achieved little. He was also a strict disciplinarian, who drove his staff and expected loyalty and obedience from them. Again, however, his thoroughness was a great asset, and there seems little doubt that his prompt and vigorous treatment of malaria (mainly with quinine) was a vital factor in the survival and success of the parties he led. His medical exploits and contributions to medical knowledge were notable. He achieved a great reputation in obstetrics, removed tumours surgically for the first time in his district, and had considerable success in treating eye disease, particularly by the use of a weak solution of silver nitrate. Gelfand states that his medical observations remain some of our earliest records on the diseases of Africa.

He was an accurate observer, which is all the more remarkable when we remember that he had to rely upon the most simple aids for diagnosis. He regretted that he had not been able to carry out autopsies. "No inspection of the body is allowed by their people, and the place of sepulchre is carefully concealed. I had to rest satisfied with conjecture."

There is evidence to suggest that he was one of the first to use the clinical thermometer (in 1852). In 1854 he observed for the first time the association between relapsing fever and the bite of the *tampan* (tick). This observation, as Gelfand says, is of great significance, as it must have been one of the first in which a disease transmitted by an insect is recorded. On the subject of tropical ulcer Livingstone wrote much, not least because he suffered much from it. One of his interesting observations was that of the presence of an insect in the anterior chamber of a man's eye; this was presumably a manifestation of filaria. He also gave a good account of geophagy, or earth-eating, which was common among slaves, although not confined to them. It was on the subject of malaria, which we have already mentioned, that he made his greatest contribution. Gelfand points out that during the Zambesi Expedition, which occupied Livingstone from 1858 to 1864, he made perhaps the first allusion to the association of malaria and the mosquito. "He did not, however, realize the significance of his observation that 'myriads of mosquitoes showed, as they probably always do, the presence of malaria'." The important thing was that he had evolved an effective form of treatment for malaria and achieved a reduction in mortality from this disease that contrasts strikingly with that experienced by leaders of other expeditions of the same period even when quinine was used. The fact that Livingstone got the most from his quinine-based régime was apparently due to the thoroughness with which his treatment and health precautions were enforced. So we might go on quoting the medical observations of this indefatigable and thoughtful doctor. His books, letters and journals are loaded with them, as they are with so much other carefully observed and recorded detail. Dr. James Macnair remarks in "Livingstone's Travels" that it is the very opulence of the material that makes Livingstone's books, in their original form, heavy going for the modern reader. He comments:

In parts they resemble one of those jungle-streams in flat country, that the Explorer often describes, where the progress of the canoe is hindered by the density of the vegetation. Livingstone's interests were so varied, and his energy so continuous, that he tended to cumber his story with an overweight of detail. When it is stated that the three books together contain over three-quarters of a million words, it will be realized that the editor's first duty is that of judicious omission.

This duty has been discharged faithfully by Macnair in relation to Livingstone's journeys of exploration and by Gelfand in relation to his medical work. It is a most commendable accomplishment, as the man is unlikely to be understood except he speaks to us in his own words.

The ultimate success of Livingstone's prodigious efforts has been much debated. In his own lifetime, despite the acclaim he received, he achieved comparatively little, but he belongs to the company of famous men whose works live after them. Livingstone was first and always a missionary. He never claimed to be an explorer or a colonist or anything else except as it was part of the primary duty to which he owed allegiance. The fact that he was, in Gelfand's words, the founder of the Federation of Rhodesia and Nyasaland, and did much else that makes him famous, would have had little interest for him. He saw a duty and was concerned only to do it, whether it was to find a healthy site for a mission station or suitable country for the settlement of native tribes displaced by the advance of Boer farmers, to fight the slave trade which he hated, to advance the religious cause that he had espoused or to guard the health of those for whom he was responsible. His outlook as a doctor is summed up by Gelfand thus:

His medicine was only a part of a larger outlook—his belief that the curing of the body was linked with the healing of the soul. The spiritual and physical well-being of a person were complementary to each other.

This profound concern for the need of the whole man, combined with his insatiable thirst for detailed knowledge and his shrewd and observant eye, made him a good doctor. If his fame does not rest on his medical work and observations, that is not remarkable. That is just how it often is with medicine.

Current Comment.

BLOOD GROUPS AND DISEASE.

In these columns earlier this year¹ we discussed the relationship between blood groups of the ABO system and certain pathological conditions, a relationship which has excited the interest of students of epidemiology for some years past. A further contribution to this discussion has recently appeared, which is likely to have considerable influence on future opinions on this subject. A. Manuila,² of the Institute of Anthropology, Geneva, has in effect challenged the whole statistical foundation on which speculations about this relationship have been based. He states that the study of the distribution of genes A, B and O in various groups, diseased or healthy, is fraught with difficulties. When a difference is found between two samples comprising, say, 500 or 1000 individuals from the same locality, there is no way of telling to what extent it should be attributed to (1) genuine differences in the ethnic and racial make-up of the two samples, (2) error

¹ M. J. AUSTRALIA, 1958, 1: 460 (April 5).

² J.A.M.A., 1958, 167: 2047 (August 23).

of sampling, (iii) errors of technique, or (iv) other causes, such as a relationship between a blood group and a particular disease. A study by A. Kopec, quoted by Manuila, of the blood group distribution in Great Britain, shows that the distribution of gene A varies at least between 19.87% and 29.44%, and that of gene O between 64.52% and 72.87%. Variations in the distribution of ABO genes of the order of 5% to 20% are found between groups from the same city or part of a country. With small groups or small isolated villages whole families belonging to the same blood group can seriously affect the results. The play of pure chance may affect the results in 1000 individuals by 2% to 4%. Errors in technique are far from uncommon, and to keep these very low infinite care must be taken. Erroneous results due to this factor have been shown to be as high as 10%.

It is clear that no conclusions should be reached unless due regard has been paid to the effects of these sources of error on the ultimate result. The first study to attract general attention was made by Aird and co-workers in 1953 on the relation between blood group A and cancer of the stomach. This is quoted in detail by Manuila. Three thousand six hundred and thirty-two subjects with carcinoma of the stomach were studied in conjunction with controls who were healthy or suffering from other diseases. The differences varied from 4% to 8% in different areas. These differences could be accounted for by the sources of possible error already discussed, particularly as group A varies in the cancer series from 36.4% in Scotland to 57% in Birmingham. Later work by other investigators failed to show any relation between cancer of the stomach and blood group A. B. P. Billington,¹ of Sydney, in 1956 studied the possible relationship between cancer of different parts of the stomach and ABO blood groups, and decided that there was a relation. Later he conceded² that his results might have been influenced by foreknowledge of the patients' blood groups. Viewing all the available evidence, Manuila concludes that there is no conclusive evidence for or against the belief that carcinoma of the stomach and blood group A are related.

A similar analysis of the evidence that the frequency of blood group O was significantly higher in patients with peptic ulcer than in the control series led to the same conclusion—that the evidence was not satisfactory, either for or against an association. The same may be said about the relation between blood group A and pernicious anaemia, and between group A and diabetes mellitus. Manuila sums up as follows:

Valid data can only be obtained if more regard is paid to sound methodology. First and foremost, extreme caution must be exercised in insuring that samples are reasonably comparable as far as their ethnic make-up is concerned. Greater awareness must also be shown of the importance of the margin of error to be expected in this type of research. Finally, the combination of two or more small series into one large sample must be rejected as a wholly unacceptable practice, since there can be no valid control series with which such samples can be compared. . . . Until more trustworthy evidence is available, judgment should be reserved.

SIR CHARLES BELL.

At the beginning of the nineteenth century the prestige of British science and medicine was enhanced by an upsurge of outstanding scholars noted for their versatility, superior intellectual attainments and original genius. Many of them opened up new vistas of knowledge and combined individual reputations for excellence in a varied career as doctor, artist, naturalist, chemist, physicist, classical scholar, writer or teacher. Among the elect of this illustrious period was Sir Charles Bell, who may have failed to reach the heights of legendary fame in the estimation of past medical historians, but whose high reputation

is assured for posterity with the publication of a definitive biography¹ laboriously compiled by Sir Gordon Gordon-Taylor and Dr. E. W. Walls, professor of anatomy in the University of London at the Middlesex Hospital Medical School.

There is a good deal about the early life and family connexions of Charles Bell which is calculated to inspire affection for him, whatever human weaknesses may show up later in his struggle to maintain a professional existence in London or to obtain unqualified recognition for priority in anatomical research on the nervous system. In 1804, a peculiar set of circumstances determined his decision to leave Edinburgh, where his older brother, John, had taken him under his wing as an apprentice and had trained him as an expert anatomist in his own school of anatomy, where the aim was to meet the needs of the practising surgeon, rather than to adhere strictly to the formal academic teaching of anatomy then in vogue. John Bell had given every encouragement to his young assistant for the full development of those natural aptitudes which eventually made him a gifted teacher, a fine surgeon, a fluent writer and a skilful draughtsman. Before his departure from Edinburgh, Charles had already collaborated with his brother in the production of a notable work, "The Anatomy of the Human Body", had published several anatomical treatises brilliantly illustrated with his own engravings, and had completed the manuscript of his "Essays on the Anatomy of Expression in Painting", which was first published two years after his arrival in London, passed through many editions and spread his fame throughout the scientific world.

Charles Bell is best remembered for his anatomical researches on the nervous system, and for first directing the attention of scientists to the need for further intensive studies to help solve some of the dark mysteries connected with the complex structure and varied functions of the human brain. Unfortunately, the record of his own experimental work, "Idea of a New Anatomy of the Brain", became known to only a limited circle of his friends and colleagues in Great Britain, as only one hundred copies of the small treatise were issued in 1811; but it showed clearly enough that the anterior nerve roots of the spinal cord consisted of centrifugal fibres conveying motor impulses, while the posterior root fibres ran centripetally and carried sensory impressions to the brain. He may have been on the verge of a great discovery, but his experiments lacked scientific exactitude, and his conclusions failed to convey absolute conviction. It was reserved for François Magendie in 1822, and Johannes Müller in 1831, to supply convincing proof of Bell's original discovery. However, the coming science of neurology was well upon its way after Marshall Hall made further experiments and, in 1835, explained the true nature of "reflex action".

This excellent biography reveals Charles Bell as a man imbued with the highest principles, deep human sympathies and unfaltering devotion to his work. There are interesting accounts of his services as a valued consultant in the surgical treatment of war casualties from Corunna and at the battlefield of Waterloo, of the macabre activities of those indispensable "resurrectionists", of his long association with the Great Windmill School of Anatomy as a worthy successor of William and John Hunter, and of the prominent part he took in the surgical work of the Middlesex Hospital and in the founding of its own medical school.

The work is generously illustrated and has a complete bibliography of writings by and about Charles Bell; and among the twenty-one separate appendices covering the last one hundred pages of the book is a complete reproduction of Bell's famous treatise of 1811. The final result of this painstaking joint research makes a worthy contribution to the history of British surgery.

¹ "Sir Charles Bell: His Life and Times", by Sir Gordon Gordon-Taylor, K.B.E., C.B., F.R.C.S., and E. W. Walls, M.D., C.B., B.Sc., F.R.S. (Ed.); 1958. Edinburgh and London: E. and S. Livingstone, Limited. 8½" x 6", pp. 300, with illustrations. Price: 42s. (English).

² *Lancet*, 1956, 2: 859 (October 27).

³ *Lancet*, 1956, 2: 1308 (December 22).

Abstracts from Medical Literature.

OBSTETRICS AND GYNÆCOLOGY.

The Treatment of Threatened and Recurrent Abortion.

J. W. GOLDZIEHER AND B. B. BENIGNO (*Am. J. Obst. & Gynec.*, June, 1958) review world opinion on the treatment of threatened and recurrent abortion. They conclude that the term recurrent or habitual abortion should apply only after four consecutive abortions, as it is only then that the abortion rate changes appreciably. The prognosis is influenced by the past obstetrical history and by the urinary pregnanediol excretion, and for the purposes of investigation patients should be classified in respect to these two criteria. In treatment, psychotherapeutic influences appear to be just as successful as the most complex medical régimes. Patients who receive stilbestrol do not do any better than those who receive no hormones at all, and recent evidence indicates that massive progesterone therapy may be of value for patients with recurrent abortion who have low urinary pregnanediol excretion. In threatened abortion a low pregnanediol excretion is of grave significance, there is no statistical evidence for the value of stilbestrol therapy, and there is definite evidence of benefit from progesterone therapy.

The Mode of Action of "Prostigmin" in Heartburn of Pregnancy.

C. L. SULLIVAN (*West. J. Obst. & Gynec.*, May, 1958) reports the relief of heartburn in 90% of a series of 151 patients with the use of "Prostigmin". One cubic centimetre of a 1:200 solution (0.5 milligramme) injected into the gluteal muscles was sufficient to provide relief. Its action is that of a cholinesterase inhibitor.

Fertility Control with Oral Medication.

G. PINGUS, C. GARCIA, E. RICE-WRAY AND I. RODRIGUEZ (*Am. J. Obst. & Gynec.*, June, 1958) report the results of a field study on 265 Puerto Rican wives and a total of 1857 menstrual cycles. An orally administered progestational 19-nor steroid, "Norethynodrel", 10 milligrammes in combination with 0.22 milligramme of ethinyl estradiol in tablet form, was used. This combination had been proved to be effective in inhibiting ovulation. The tablets were taken from day five through to day twenty-four of the cycle, and resulted in a normal distribution of lengths of menstrual cycle. Presumption of suppression of ovulation is assumed, in that conception did not occur in any instance in which the schedule was followed faithfully. Amongst those who omitted medication for three or more days, the low incidence of pregnancy was roughly proportional to the number of unused tablets. The endometrium showed a prompt progestational effect after five to seven days of medication, but did not progress in terms of glandular response. No pathological endometrial changes occurred. Reactions due to the compound

were breast tenderness, nausea, dizziness, vomiting and pelvic pain, occurring much more frequently during the first cycle of medication and being significantly lower in later cycles. The authors believe that their results demonstrate the action of a powerful agent for fertility control among the women using it. The drug as thus used does not interfere with subsequent fertility.

Abruptio Placentae and Hypofibrinogenæmia.

J. A. PRITCHARD (*Am. J. Obst. & Gynec.*, August, 1958) presents a laboratory and clinical report on 11 patients with significant hypofibrinogenæmia associated with placental separation. Hypofibrinogenæmia may develop within six hours after the onset of symptoms of placental separation. If it is uncorrected, the blood loss during the early puerperium is not excessive if there is sufficient myometrial tone. After delivery, the plasma fibrinogen level rises in an approximately linear fashion, and eight to 12 hours usually elapse before the plasma fibrinogen reaches a level adequate for satisfactory clot formation. There is a considerable lag in the formation of thrombocytes. The administration of normal blood, either fresh or stored, is of little value to correct fibrinogen deficiency. Fibrinogen should not be given to patients unless a positive lack is demonstrated, as homologous serum jaundice develops in at least one out of 20 patients treated. It is necessary to correct hypofibrinogenæmia when an operation is to be performed, general anesthesia is to be given, genital tract lacerations are present, or the uterus does not remain firmly contracted after delivery.

The Treatment of Female Sterility with X-Ray Therapy.

IRA I. KAPLAN (*Am. J. Obst. & Gynec.*, August, 1958) reevaluates the clinical results in a series of 816 women treated with X-ray therapy to the pituitary and ovaries for sterility. In all, 660 conceived and 540 children were born following irradiation, from the years 1924 to 1957. In the series of 540 children and 43 grandchildren, there was no evidence that any had developed any malignant disease, even children who have now passed the age of 25 or 30 years. The overall incidence of abnormalities was 3.7%, as against 7% occurrence of abnormalities usually noted in the children of the general population. The second generation children born to children of irradiated women are normal in every respect, and the author states that any adverse criticism based solely on animal experimentation against the use of X-ray therapy to the pituitary and ovaries cannot properly be extrapolated for results in human beings.

PÆDIATRICS.

Subarachnoid Bleeding in Young Children.

R. HOLLENHORST AND H. STEIN (*Arch. Ophthalm.*, August, 1958) report on the ocular signs in 47 cases of proved subdural hæmatoma, subdural hygroma and subarachnoid hæmorrhage in children aged

five years or less. Ocular abnormalities were present in 60% of patients. These consisted of subhyaloid and retinal hæmorrhage, papilloedema and cranial nerve palsies. Of 23 patients traced who had ocular abnormalities at the time of intracranial bleeding, eight had permanent ocular defect.

Amblyopia ex Anopsia.

S. MAYWEG AND H. H. MASSIE (*Bristol J. Ophthalm.*, May, 1958) report on the Coppers treatment of amblyopia using the visuscope and euthyscope. The patients chosen were aged between three and 13 years and had not responded to occlusion of the fixing eye. The age of onset of the squint varied from birth to three years. The visuscope was used for diagnosis and the euthyscope and coordinator for treatment. The authors describe the method of treatment, in-patients being treated daily and out-patients three times a week. Each period of treatment lasted 30 minutes. The number of treatments ranged from five to 53, the average being between 20 and 30. Of patients with amblyopia, 50 were treated; in 38 the visual acuity improved to 6/12 or better.

Eye Changes in Metabolic Disease.

J. M. SMELLIE (*Tr. Ophthalm. Soc. U. Kingdom*, 1957) discusses metabolic diseases in children which affect the eye. Cystinuria is a congenital inborn error of metabolism; cystine crystals become deposited in the cornea. Galactosæmia is a rare inborn error of carbohydrate metabolism; cataracts appear, but will disappear if the disease is recognized early and treatment instituted. In Wilson's disease (hepato-lenticular degeneration) there is a deposition of copper in the cornea.

The Unattached Lamina in Spondylolysis.

E. M. TODD AND W. J. GARDNER (*Surg., Gynec. & Obst.*, June, 1958) state that there is increasing evidence that the backache and leg pain in spondylolysis and spondylolisthesis are due not to instability of the lumbo-sacral joint as has been generally believed, but to the abnormal mobility of the unattached lamina. For this reason, the removal of the unattached lamina is beginning to replace the various techniques of spinal fusion in the treatment of this condition. The essential feature of the operation is the complete removal of the unattached lamina, the ligamentum flavum, and the mass of tissue surrounding the pseudoarthrosis. This procedure necessitates a wide lateral exposure. The nerve roots are disclosed by removal, by means of a small electric drill, of the shelf-like projection from the pedicle. This shelf invariably covers the roots at least partially, and seemingly protects them from compression by the unattached lamina. Examination of the involved disk in no instance disclosed a significant degree of protrusion. The criterion for surgical intervention in spondylolysis, with or without listhesis, is incapacitating pain. Patients with moderate distress may eventually come to operation, but certainly should not unless conservative measures have proved ineffective. Data on 15 patients who underwent this

operation for spondylolysis are presented. The operative results were as follows: excellent—unrestricted activity with no backache or leg pain in seven cases; good—unrestricted activity with occasional mild backache or leg pain in four cases; fair—unrestricted or slightly limited activity with recurrent mild backache or leg pain in three cases; poor—persistent backache or leg pain in one case,

Venous Shunt Procedures for Portal Hypertension in Children.

H. KING AND H. B. SHUMACKER (*Surgery*, April, 1958) present a report of a reappraisal of venous shunt procedures for portal hypertension in children. They treated nine patients on whom they performed 10 operations. After the 10 operations, upper gastro-oesophageal bleeding recurred in seven instances. Additional operative procedures were attempted or performed on four patients, and three of these eventually died. In two cases bleeding has recurred recently, and further operative therapy has been planned but not yet carried out. Three patients only have had no recurrence of bleeding after operation, two over eight years and one over six years. In these three cases, the authors noted that the ages of the children at time of operation were 11, 13 and 14 years respectively. In these three it was their impression that the splenic and renal veins were large enough to permit an anastomosis of adequate size. All the patients who were operated on before the age of 11 years had recurrence of bleeding. At present, it is the authors' impression that splenectomy and spleno-renal shunts performed in children who have portal hypertension with oesophageal varices and upper gastro-oesophageal bleeding will give reasonably good results only if the splenic and renal veins are of sufficient size to permit a relatively large anastomosis. If these structures and the resulting anastomosis are small in size, bleeding will recur. These circumstances prevail in children aged under 11 years. They point out that oesophago-gastrectomy performed as an emergency procedure for bleeding oesophageal varices is attended with a high mortality, and that probably transoesophageal ligation of the varices would be better tolerated.

Idiopathic Perforation of the Stomach in the Newborn.

K. B. CASTLETON AND F. F. HATCH (*Arch. Surg.*, June, 1958) report three cases of idiopathic perforation of the stomach in the newborn. They consider that this is a definite clinical entity, and is probably due to a congenital defect in the stomach musculature. The condition is common in male infants, and is associated with prematurity and congenital anomalies in a higher percentage of cases than would be expected. It usually occurs within the first three or four days of life, and is easily diagnosed by clinical and X-ray findings, especially if it is kept in mind. The perforation occurs usually along the greater curvature of the stomach. The treatment is immediate operation and suture of the perforation; even so, the mortality is high. They state that, including their three cases, to date a total of 43 cases has been reported in the literature.

ORTHOPÆDIC SURGERY.

The Osgood-Schlatter Lesion.

B. COHEN AND R. W. WILKINSON (*Am. J. Surg.*, May, 1958) present 11 cases of Osgood-Schlatter disease, in seven of which histological examination of the tibial tubercle was possible. The radiological and histological features are discussed in detail, especially in so far as they contribute to an understanding of the aetiology of this controversial disorder. It is concluded that there is no justification for regarding this condition either as an aseptic necrosis of bone or as osteochondritis. The authors believe that the process is one of dislocation of appositional structures within the tibial tubercle complex; that this dislocation is not preceded by underlying disease; that it is followed by repair reactions; and that its origin can most feasibly be ascribed to trauma.

Reconstruction versus Prosthesis.

J. J. CALLAHAN (*Arch. Surg.*, May, 1958) reviews a series of 50 cases in which he considers that reconstruction proved preferable to prosthesis in the following situations in the aged: (i) in cases of non-union of the neck of the femur with extreme absorption from decalcification of the proximal and distal portions of the neck; (ii) in aseptic necrosis of the femoral head following any injury interfering with the circulation of the head and neck of the femur; (iii) in severe osteoarthritic changes; (iv) in the presence of malformations; (v) in subcapital fractures. He considers that the advantages of reconstruction are early weight-bearing, allaying of the patient's anxieties regarding (i) growth of bone and eventual union, (ii) duration of waiting, (iii) metal sensitivity, and (iv) the possibility of a new fracture, and relief of pain. He states that the disadvantage of a possible Trendelenburg gait is slight, because it is not disabling. There is some restriction of flexion of the thigh associated with varying degrees of shortening; these are minor consequences, compensated by the major advantage of the patient's being enabled to continue comfortably with his normal activities. He opposes the insertion of prostheses in the young, for the following reasons: Failure of treatment precludes successful alternative treatment later. Available prostheses are too limited in sizes to ensure accuracy of fit to the acetabulum. Post-operative pain from sclerosis at the articulation is intractable. Removal of the prosthesis for relief cannot be effected without resultant shortening. Plastic or "Lucite" heads may fracture or disintegrate, and are believed by some to be carcinogenic; metal carries with it the problem of sensitivity and absorption at the points of contact. In general, he states that replacement prosthesis may be utilized only when fixation is not practicable, when the patient is past life expectancy, or when the fracture is a true subcapital fracture which would not heal in any case. In these instances, by reconstruction or by insertion of a prosthesis, the patient can be made ambulatory in a shorter period than by internal fixation. When fracture occurs in the presence of malignant disease, any procedure which

will relieve pain, discomfort and disability is justified.

Metallic Transfer in Corrosion of Screws.

P. G. LAING (*J. Bone & Joint Surg.*, July, 1958) states that corrosion of metal is a complicated mechanism and that many factors influence it. In an electrolytic fluid it consists essentially in the transfer of ions into solution at one part of the metal and out of solution in another part. He lists the following factors as encouraging corrosion in the body: (i) the use of mixed metals; (ii) the use of the same metals, but mixed metallurgically; (iii) fretting or movement between metal parts; (iv) differential aeration, which occurs because the oxygenation between metal and metal is different from that between metal and dead bone and metal and living bone; (v) electrolyte gradient; (vi) surface damage; (vii) elastic or elastic stress within the metal; (viii) surface imperfections on the metal; (ix) metallic transfer, such as occurs when metal is handled by instruments or screws are driven in by screw-drivers. The surface metal is never perfectly smooth, so there are high points of contact between the tools and instruments leading to pressure welding of metal to metal and corrosion in this situation. This is influenced by different hardnesses and to some degree by the different metals of the tools and the plates or screws, etc. The author has considered this experimentally and studied the changes histologically. He finds that in general the cobalt-chromium-molybdenum alloy known as "Vitalium" is more inert, but that handling definitely increases the cellular reaction. Particularly, when too hard screw-drivers are used, the metallic reaction around the slot in the screws is quite excessive. He advocates a screw-driver of the same metal as the screw, but a little harder.

Milwaukee Brace in Scoliosis.

W. P. BLOUNT (*J. Bone & Joint Surg.*, June, 1958) summarizes the development of the Milwaukee brace and describes its latest modification. Fixation of the head-piece allows the patient to take pressure off the chin while eating and cleaning his teeth. This also prevents alteration of the bite from pressure. The author uses the brace sparingly in the non-operative management of scoliosis. In adolescence, just before the end of the growth period, it helps control the last progressive development of curve before growth stops. He uses it in a few convalescent poliomyelitis patients and in chronic poliomyelitis when there is pelvic obliquity. When surgery is contemplated, the patient wears the brace for one or two weeks before the operation. This allows contact areas to become accustomed to the pressure of the brace. The brace is reapplied after the operation, and the patient is returned to the ward wearing the brace. The patients are kept recumbent for about five months after the last operation. After the brace has been removed and the child allowed to walk, careful investigation is needed to detect any evidence of a break in the graft. The author stresses the importance of maintaining the patient's condition during the convalescent period.

British Medical Association.

QUEENSLAND BRANCH: ANNUAL MEETING.

THE annual meeting of the Queensland Branch of the British Medical Association was held at British Medical Association House, 88 L'Estrange Terrace, Kelvin Grove, on August 30, 1958, DR. L. A. LITTLE, the President, in the chair.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council for the year ended June 30, 1958, was received and adopted. The report is as follows.

The Council has pleasure in presenting the sixty-fourth annual report of the work of the Branch for the year ending June 30, 1958.

Membership.

The membership of the Branch is 1292 plus four honorary life members, as against 1216 and seven honorary life members in 1957, making a total gain of 73. There are also 61 honorary associate members, 25 of whom were elected this year. Thirty-six honorary associate members were elected to full membership on graduation.

The gains were: new members, 77; transfers from other Branches, 56; members reinstated, 2; members reelected, 5. The losses were: members transferred to other Branches, 51; deceased, 8; resigned, 6; struck off, 2 (owing to non-payment of subscription).

The following, by virtue of their fifty years' membership of the British Medical Association, have become honorary life members: Dr. A. B. Carvosso, Dr. Ernest Culpin, Dr. W. Wallis Hoare and Dr. Charles E. Williams.

Obituary.

It is with deep regret that we record the deaths of the following distinguished members:

Dr. Valentine McDowall was born in Queensland 76 years ago and was educated at the Brisbane Grammar School and the University of Sydney. He graduated in 1905 and became a resident medical officer at the Royal Prince Alfred Hospital. In 1907 he started practice at Laidley and was one of the first country practitioners to own a motor car. His army service in both World Wars was outstanding—in the first war he saw service in Egypt and England, and in the second, on the home front, commanding the 17th Australian General Hospital at Toowoomba for a period. Returning to Brisbane in 1919, he first practised as a dermatologist and radiologist, later confining himself to radiology alone, and served at the Brisbane General Hospital as senior radiologist and later radiotherapist from 1919 to 1944. A valued councillor, he was elected President of the Branch in 1925. He was a foundation member of the Australian and New Zealand Association of Radiologists and became President of that body in 1947. He was also a foundation Fellow of The Royal Australasian College of Physicians and a Fellow of the Faculty of Radiologists of England.

Dr. Walter Crosse was born in England in 1887 and qualified in Edinburgh in 1910. Following service as a ship's surgeon he migrated to Australia in 1912. After a short period in Victoria he practised at Murwillumbah, New South Wales, until the first World War, when he served with the Light Horse in the Middle East. He obtained his F.R.C.S. at Edinburgh in 1919 and on return to Australia commenced practice as an ear, nose and throat surgeon in Brisbane. In 1921 he joined the honorary staff of the Hospital for Sick Children, Brisbane, and later became senior E.N.T. surgeon at the Brisbane General Hospital. On retirement from this position in 1946 he was appointed honorary consultant surgeon. Ill health forced his retirement from practice in 1953.

We also record with deep regret the deaths of Dr. R. Fulton Craig, Dr. Eleanor C. Greenham (honorary life member), Dr. N. Goldman, Dr. G. R. Ruscombe Poole and Dr. P. R. Walsh.

Council.

Twenty-four meetings of the Council have been held since June 30, 1957, one being a special meeting. Nineteen of these meetings were in the present council year. Record of attendance is as follows:

Dr. L. A. Little (President)	22
Dr. S. A. McDonnell (President-Elect) ¹ .. .	21

Dr. Felix Arden (Past President) .. .	18
Dr. W. D. Friend (Honorary Secretary) ..	18
Dr. D. P. Sapsford (Honorary Treasurer, Federal Council Representative) .. .	22
Dr. A. E. Lee (Chairman of Council, Federal Council Representative) .. .	23
Dr. Charles Roe (Chairman of Subcommittees, Councillor) .. .	18
Dr. Robert Miller (Honorary Secretary of Subcommittees, Councillor) .. .	20
Dr. B. N. Adsett (Councillor) .. .	15
Dr. N. C. Davis (Councillor) ² .. .	16
Professor D. Gordon (Councillor) ¹ .. .	17
Dr. D. R. L. Hart (Councillor) .. .	18
Dr. H. W. Horn (Councillor) ^{1,3} .. .	12
Dr. D. C. Jackson (Councillor) .. .	18
Dr. I. G. McPhee (Councillor) ¹ .. .	18
Dr. H. S. Patterson (Councillor) .. .	23
Dr. N. V. Youngman (Councillor) ² .. .	17
Dr. K. S. Mowatt (Councillor) ⁴ .. .	10
Dr. A. P. Crawford (Councillor) ³ .. .	5

Scientific Meetings.

In addition to the annual general meeting, ten ordinary general meetings of the Branch were held, including the Bancroft Oration, the Jackson Lecture and two clinical meetings. The average attendance at the general meetings was 40.

Details of meetings are as follows:

July: "Use and Abuse of Common Gynaecological Operations", Dr. L. P. Sapsford and Dr. K. G. Cockburn.

August: Symposium—"Stress Disorders in Practice", Dr. Kurt Aaron, Dr. W. J. Hamilton and Dr. N. V. Youngman.

September: Professor A. A. Abbie, Professor of Anatomy and Histology, University of Adelaide, "Anthropology and the Medicine of Moses" (thirty-second Bancroft Oration).

October: Clinical meeting in conjunction with Mater Misericordiae Hospital Clinical Society.

November: "Progress in Psychiatry", Dr. Gregory Murphy (twenty-seventh Jackson Lecture).

February: Clinical meeting in conjunction with Brisbane Hospital Clinical Society.

March: "Recent Advances in E.N.T. Which Would be of Interest to the General Practitioner", Dr. L. T. Jobbins.

April: "Medicine's Increasing Dependence on History", Professor John Bostock. Meeting held in conjunction with Historical Society of Queensland.

May: Lecture by Professor Saul Adler, O.B.E., F.R.S., M.R.C.P., D.T.M., Professor of Parasitology, Hebrew University, Jerusalem, "Epidemiological Aspects of Mass Migrations".

June: "Virus Infections", symposium by Dr. Felix Arden, Dr. R. L. Doherty and Dr. A. F. Knyvett.

Office Bearers and Councillors.

The following office bearers were appointed by the Council for 1957-1958: Chairman of Council, Dr. Alan E. Lee; Honorary Treasurer, Dr. D. P. Sapsford; Chairman of Subcommittees, Dr. Charles Roe (reelected); Honorary Secretary of Subcommittees, Dr. Robert Miller (reelected); Honorary Librarian, Dr. Felix Arden; Honorary Assistant Librarian, Dr. H. S. Patterson.

Dr. S. A. McDonnell was elected to the position of President-Elect, Dr. W. D. Friend was reelected Honorary Secretary, and, in accordance with the by-laws, the following were elected members of the Council for a period of two years, 1957-1959: Dr. B. N. Adsett, Dr. N. C. Davis, Professor D. Gordon, Dr. H. W. Horn, Dr. Alan E. Lee, Dr. I. G. McPhee, Dr. Charles Roe.

We greatly regret that retiring Councillors Dr. Felix Arden, Dr. D. R. L. Hart, Dr. D. C. Jackson and Dr. N. V. Youngman are not seeking reelection this year.

¹ Elected September 14, 1957.

² Resigned December 13, 1957.

³ Leave six meetings.

⁴ Appointed to Council January 24, 1958.

⁵ Leave six meetings.

Dr. Felix Arden, who was President in 1956-1957, has been a valued councillor for eight years. Dr. Jackson has served for six years, Dr. Hart for four years (during two years of which he filled the arduous post of honorary secretary), and Dr. Youngman has completed two years' service. All four of them have contributed in no small measure to the successful administration of Branch affairs, and we express our sincere thanks to them for the ability and time they have devoted to the work.

Representation.

The Branch was represented as follows during the year:
Council of the British Medical Association: Professor B. W. Windeyer.

British Medical Association, Representative Meeting, Birmingham, July, 1958: Delegates, Dr. W. J. Hamilton, Dr. A. P. Crawford, Dr. H. S. Waters.

Federal Council of the British Medical Association in Australia: Dr. Alan E. Lee, Dr. D. P. Sapsford.

Australasian Medical Publishing Company Limited: Dr. Alan E. Lee (director), Dr. H. W. Horn, Dr. J. G. Wagner.

Medical Assessment Tribunal: Dr. G. W. Macartney.

Medical Board of Queensland: Dr. F. W. R. Lukin, Dr. S. A. McDonnell, Dr. J. G. Wagner.

Medical Officers' Relief Fund (Federal), Queensland Committee: Sir Kenneth Fraser, Dr. G. W. Macartney, Dr. W. H. Steel.

Federal Medical War Relief Fund, Local Committee of Management: Dr. J. G. Wagner (chairman), Dr. B. L. W. Clarke, Dr. Charles Roe, Dr. W. H. Steel.

Medical Services State Committee of Inquiry: Dr. H. W. Horn, Dr. G. V. Hickey (senior), Dr. H. S. Patterson, Sir Kenneth Fraser.

National Safety Council of Australia (Queensland Division): Dr. S. A. McDonnell.

National Fitness Council of Queensland: Dr. Harold Crawford.

Physiotherapy Board of Studies: Dr. Donald Watson.

Post-Graduate Medical Education Committee: Dr. Alan E. Lee, Dr. B. N. Adsett, Dr. A. F. Knyvett.

Queensland Bush Children's Health Scheme: Dr. H. W. Anderson.

Queensland Bush Nursing Association: Dr. L. Bedford Elwell.

Queensland Health Education Council: Dr. W. J. Saxton.

Queensland Institute of Medical Research: Dr. D. A. Henderson.

Queensland Radium Institute: Dr. Alan E. Lee.

Red Cross Blood Transfusion Service Committee: Sir Kenneth Fraser.

Royal Flying Doctor Service of Australia: Dr. I. G. McPhee.

Surf Life Saving Association of Australia (Queensland Branch): Dr. F. W. R. Lukin.

University of Queensland, Faculty of Medicine: Dr. W. J. Saxton.

University of Queensland, Pharmacy Course Committee: Dr. A. Gordon Grant.

The Editor of THE MEDICAL JOURNAL OF AUSTRALIA was represented by Dr. Felix Arden.

Council acknowledges with thanks the reports received from Branch representatives on these bodies.

Library.

From July, 1957, to June, 1958, four hundred and sixty-six (466) journals and text-books were borrowed by members and other medical and scientific libraries. This is an increase on the previous twelve months and does not include those who visit the library to read and study.

The Branch receives fifty-one journals plus "British Surgical Practice", "The Medical Annual" and selections of year books on various subjects and other clinical reports.

On behalf of the Association the Librarians wish to thank the Society of Returned Medical Officers, who have made available the sum of £155 for the purchase of books for a memorial section of the library; also the College of General Practitioners, who have advised us that they would be pleased to pay the subscriptions to *The Practitioner* and *The*

Lancet. Our thanks go also to the Editor of THE MEDICAL JOURNAL OF AUSTRALIA for another donation of text-books, which are a valuable addition to the library.

Finally, the Association would like to express its appreciation of the cooperation and assistance rendered throughout the year by other Branches and the medical and scientific libraries of Queensland.

During the year a photo-copying machine was purchased and has been installed. This enables us to send to members, in natural size and at low cost, photostat copies of any article from the books and periodicals in the library. We believe it will be particularly useful to country members otherwise cut off from library facilities.

After many years of valuable service Professor Neville Sutton (Honorary Librarian) and Dr. Konrad Hirschfeld (Honorary Assistant Librarian) relinquished their duties at the beginning of the year. They have earned the thanks of the Association.

Dr. Felix Arden and Dr. Stuart Patterson have been elected in their place.

Building and Maintenance Subcommittee.

Personnel: Dr. L. J. J. Nye (Chairman), Dr. B. L. W. Clarke, Dr. A. D. A. Mayes, Dr. D. P. Sapsford and Dr. Donald Watson.

The Building and Maintenance Subcommittee had a much easier year, as the new B.M.A. House had been completed in the previous year, and there remained only minor structural changes and improvements to attend to.

A bigger problem was the financing of the many commitments associated with the purchase of, and alterations to, our new home. For this purpose an appeal was made and many of our members responded generously, giving a total of well over £5000.

This has not been enough to allow the many improvements and additions that the Building Committee would still like to pursue, but it was still a fine effort from only about 300 doctors.

During the year a property at the rear of B.M.A. House, facing on to Herston Road, was bought by the Association. From this a strip has been transferred to the B.M.A. House property, thus providing a roadway to Herston Road. The remaining (larger) portion, on which a house stands, will be disposed of, and will probably provide an excellent home for the B.M.A. Secretary.

At present, attention to roadways and parking space is considered to be most urgent. These are being attended to as quickly as finance allows.

Ethics Committee.

The following were elected members of the Ethics Committee at the last annual meeting of the Branch: Dr. J. J. Power (Chairman), Dr. N. L. Sherwood (Honorary Secretary), Dr. B. L. W. Clarke, Dr. F. W. R. Lukin, Sir Alexander Murphy, Dr. L. J. J. Nye, Dr. W. H. Steel.

Four meetings of the Committee were held during the year.

Organization Committee.

Personnel: Dr. Charles Roe (Chairman), Dr. Robert Miller (Honorary Secretary), Dr. D. R. L. Hart, Dr. H. W. Horn, Dr. I. G. McPhee.

Twenty-three meetings were held during the year. This Committee meets a few days before council meetings to deal with correspondence and matters to be referred to Council, and to make recommendations where policy is not involved.

Medical Fees Tribunal.

Personnel: Dr. J. G. Wagner (Chairman), Dr. Alan E. Lee (Honorary Secretary), Dr. N. L. Sherwood, Dr. D. C. Jackson, Dr. D. R. L. Hart.

Four cases were submitted for adjudication during the year and were then referred to Council for the necessary action.

Bancroft Oration.

The thirty-second Bancroft Oration was delivered at the general meeting of the Branch held on September 12, 1957, by Professor A. A. Abbie, M.D., D.Sc., Ph.D., F.R.A.C.P., Professor of Anatomy and Histology at the University of Adelaide. The title was "Anthropology and the Medicine of Moses".

At the conclusion of the oration the Joseph Bancroft Memorial Medal was presented to the Orator by the President.

Jackson Memorial Lecture.

This lecture is an historical one delivered annually in memory of the late Ernest Sandford Jackson.

Dr. Gregory B. Murphy, Brisbane, delivered the twenty-seventh Jackson Memorial Lecture on November 1, 1957, at the Lecture Theatre, Medical School, Herston. The title of the lecture was "Progress in Psychiatry".

E. S. Meyers Memorial Lecture.

A lecture in memory of the late Errol Solomon Meyers was established in conjunction with the University of Queensland Medical Society. The inaugural lecture was fittingly delivered by the present Dean of the Faculty of Medicine and Professor of Surgery, Professor Neville G. Sutton, at the Lecture Theatre, Medical School, on July 19, 1957, the title being "Comprehensive Medicine".

Memorial Prizes, 1957.

At the annual general meeting of the Branch, to be held on August 30, 1958, the following prizes awarded on the recommendation of the Faculty of Medicine of the University of Queensland will be presented by the President:

Memorial Prize of the Queensland Branch of the British Medical Association: John Leonard Seymour, M.B., B.S., University of Queensland, 1957.

Harold Plant Memorial Prize: Richard Douglas Gordon, M.B., B.S., University of Queensland, 1957.

British Medical Association Memorial Roll.

The British Medical Association Memorial Roll commemorates the services of former distinguished members of the Queensland Branch of the British Medical Association.

According to custom, the names appearing in the Memorial Roll of the Branch were read by the President at the annual general meeting held on September 14, 1957.

During the year the names of Harold Russell Love, John Alexander Cameron, Thomas Arthur Price, Otto Saddler Hirschfeld and Valentine McDowall were inscribed on the Memorial Roll of the Association by unanimous decision of Council. These names of distinguished members were submitted to the Council by a convention of Past Presidents of the Branch which meets annually for this purpose.

Medical Students' Loan Fund.

Personnel of Committee: Sir Alexander Murphy, Professor H. J. Wilkinson, Professor J. H. Tyrer, Professor Douglas Gordon and a representative appointed by the University of Queensland Medical Society.

This fund was established to help needy students in the later years of their course. During the year one student was granted financial help to aid in the completion of his studies.

Federal Council.

Two meetings of the Federal Council were held during the year, in Adelaide, where the Branch was represented by Dr. Alan E. Lee and Dr. J. G. Wagner, and in Hobart, where its representatives were Dr. Alan E. Lee and Dr. D. P. Sapsford.

At the Hobart meeting the Federal Council placed on record its appreciation of the valuable services rendered to the Council by Dr. H. W. Horn and Dr. J. G. Wagner.

Dr. Alan E. Lee was nominated as representative of the Federal Council on the Medical Benefits Advisory Council, which has been set up by the Minister of Health to offer advice on voluntary insurance matters.

With the increasing part being assumed by the Federal Government in the finance of the medical services, the Federal Council has become an extremely important part of British Medical Association administration.

As the organizer of Australasian medical congresses, it was gratified at the great success of the tenth congress held in Hobart last March.

Pensioner Medical Service.

Since November 1, 1956, no agreement has existed between the Commonwealth Government and the Federal Council regarding the terms and conditions under which service will be rendered by doctors to pensioners.

The Government has recently offered an increased rate of 11s. (consultation) and 13s. (visit), and this has been accepted by the Branches.

The new agreement will come into force with effect from July 1, 1958, for a term of two years.

Australasian Medical Publishing Company, Limited.

The Directors met twice during the year, and the Branch was represented on each occasion by Dr. Alan E. Lee.

The sudden death of Dr. Mervyn Archdall, within a week of his retirement from the editorial chair of the Journal, was a sad event. Apart from his continued memorial in the Journal which he did so much to foster, his memory will be perpetuated in his portrait which hangs above a suitable plaque in the board room of The Printing House.

The best wishes of the Branch were extended to Dr. Ronald Winton, the new Editor.

With the completion of extensions and the installation of the most modern machinery, The Printing House now occupies such an unrivalled position in the field of scientific printing that the publication of the Journal forms a relatively minor part of its activities.

The Directors are also keeping in mind the possibility of the publication of a lay health magazine, on the same lines as the English *Family Doctor*.

Dr. Mervyn Archdall.

The death of Dr. Mervyn Archdall on September 6, 1957, followed closely on his retirement from the editorship of THE MEDICAL JOURNAL OF AUSTRALIA and his honouring by the Federal Council with the Gold Medal of the Association in Australia. Those of us who knew him well felt his passing as a grievous personal loss. He was a welcome member at Branch council meetings on his periodic visits to Queensland, and on these occasions his strong personal convictions on all matters concerning the honour and interests of the profession and the prestige of his beloved Journal made him a forceful opponent in debate.

He had scores of friends among the medical profession in Queensland, as in every other State, who enjoyed his company, his ability to converse on many topics, his gusty laughter and delight in horse-play, his genuine interest in them and their affairs. His wide knowledge, his capacity for writing and his skill in his chosen career are reflected in the progress of THE MEDICAL JOURNAL OF AUSTRALIA, which he edited and guided over a period of twenty-seven years, bringing it in this time to a high place among medical periodicals. But most of all Mervyn Archdall was admired and loved for his warm heart and his great courage, his conviction that life was a grand adventure to be tackled with gaiety and vigour, and seen through to the end.

Medical Benefits Fund of Australia.

This fund is maintaining its position as the chief agent for the provision of hospital and medical benefits under the *National Health Act*, and contains a large majority of all Queensland contributors.

Its activities are gradually being decentralized, so that payment of benefit can be effected in large country centres.

A building for its own use is at present under construction in Townsville.

A great deal of attention has been given to the problem of those persons who are ineligible for benefit owing to pre-existent and chronic illness, and there are good grounds for hoping that in association with the Commonwealth Government their position will be soon improved. Since January 1, 1958, the increased Commonwealth benefit has been a great help to hospitalized contributors.

Under the present rules of the fund, hospital benefit is payable irrespective of the charge, and the relationship of this payment to the free hospital system of Queensland has continued to receive attention.

The elected medical members of the Queensland executive are: Dr. Alan E. Lee (Chairman), Dr. J. R. Adam, Dr. B. N. Adsett, Dr. R. S. Cohen, Dr. H. W. Horn, Dr. L. A. Little, Dr. H. S. Patterson, Dr. N. L. Sherwood, and Dr. J. G. Wagner.

Rehabilitation Services.

Close attention has been given by this Council and also the Federal Council to the question of rehabilitation programmes in relation to acute disease or injury.

Though a service is provided by the Department of Social Services it suffers from the disadvantage that it is commenced late in the patient's period of disability, and there is no continuity of management from the acute stage onwards.

After a meeting was held between representatives of the Branch Council and persons interested in this problem, a submission was prepared and sent through the Federal Council to the appropriate Commonwealth Department, asking that money be made available, on the same basis as

in the tuberculosis campaign, for the setting up by the States of properly staffed rehabilitation departments in the major acute public hospitals.

Approaches have also been made to the State Minister for Health regarding the requirements in Queensland.

Repatriation Local Medical Officers.

The terms of service of these doctors have long been regarded as unsatisfactory. Since a majority of them opposed the desire of their councils that the direct contract with the Department should cease, and that eligible persons should be treated as private patients eligible for a departmental benefit, improvement of the terms of service remained a matter for negotiation between the Federal Council and the Commonwealth Government.

The Chairman of the Repatriation Commission has now announced an increase in rates to 13s. (consultation) and 15s. (visit). He also desires to introduce a voucher system of payment similar to that in the Pensioner Service.

Such a voucher system has already been advocated by this Branch.

Organization of Medical Profession in Australia.

In recent months a matter of great importance to the Branch has been under discussion concerning the overseas subscription of members of the Association. For the provision of the *British Medical Journal* and the other advantages inherent in membership of this powerful Association, a subscription has been charged to overseas members of two guineas *per annum*, but since there is a rebate to overseas Branches for administrative purposes of 10s. 6d. per member, while also Australia has been paying in her own currency, the net return to England is 25s. sterling per Australian member.

The cost of postage alone on the Journal is 23s. 10d. sterling, so that members are receiving a substantial subsidy from the subscriptions of English members.

When the Central Council proposed to increase the subscription to three guineas sterling the Australian Branches asked that the receipt of the Journal should be voluntary, those desiring it paying the full overseas subscription, and the remainder a much smaller sum.

This matter is still under discussion and it is hoped that a final decision will be deferred till the Federal Council has the opportunity of giving the matter its full attention.

It will be realized that this proposal raises the whole question of the value of membership in the British Medical Association, and whether Australia should follow some of its sister dominions in forming its own Association.

Hospital Boards.

It is gratifying that, following recommendations from Local Associations and Council to the Minister for Health and Home Affairs, some 15 members were elected to hospital boards in Queensland, and it is to be hoped that eventually members of the Association will be appointed to every hospital board in the State.

Convocation.

The first Branch Convocation, held at B.M.A. House on April 12, 1958, was attended by delegates from 11 Local Associations and nine Special Groups and by members of the Council, 50 members in all being present. The response and interest shown were gratifying and enabled Council to obtain the views of a much wider representation of members than was possible at the Local Association Conferences held in previous years. Matters discussed included B.M.A. health policy, Pensioner Medical Service, Repatriation services, rehabilitation services, workers' compensation, hospital policy, meetings with political organizations, medical companies, B.M.A. House and appeal, post-graduate activities, M.A.P. superannuation plan, advertising and monthly meetings.

It is proposed to hold similar convocations twice a year in future and in this way to keep members in closer touch with Council policy and the general affairs of the Branch.

Advertising.

To reduce the time spent by Council in investigating numerous complaints and instances of irregular advertising by members—many of them inadvertent and some the fault of the newspapers—a revised By-Law 23 (a) was approved at a general meeting of the Branch on November 1, 1957, which now requires that all members' advertisements shall be inserted through the Council. Although concern was expressed by some country members at the possibility of

unnecessary delay, in fact this has not occurred. Generally the arrangement has worked well, and complaints in this regard have been reduced to a minimum.

Australasian Medical Congress (British Medical Association).

The Tenth Session of the Australasian Medical Congress (British Medical Association) was held at Hobart on March 1-7, 1958. It was very well attended by Queensland representatives, up to forty members of the Branch being present.

From both scientific and social points of view it was an unqualified success. Great credit must be accepted by our Tasmanian colleagues for the very hard work that they put into both aspects of the Congress. With their limited numbers, the hospitality they displayed was amazing. Their official functions were extremely well carried out. The usual high standard of scientific papers and discussions was maintained.

Altogether it was a very memorable occasion, and Tasmania can be proud of it.

Affiliated Local Associations.

The usual annual meeting of the Council with representatives of Local Associations was held on September 13, 1957. Representatives from nine Local Associations were present, and the business discussed included workers' compensation matters, National Health Service, B.M.A. House and building fund, medical companies, convocation, medical and associate professions superannuation plan, State Government matters, Government medical officers conditions of service and Repatriation services.

With the institution of the Branch Convocation these annual meetings will no longer be held.

Bundaberg Local Association.

Our branch has had an instructive year with monthly meetings including general business followed by a lecture from a selected member.

During the last year we have had three visitors from the post-graduate pool instructing us in obstetrics, cardiology and urology. All lectures were well attended and were very successful.

Our President is Dr. L. McKeon, and we now have seventeen members.

L. S. STARK,
Honorary Secretary.

Cairns Local Association.

Regular meetings have been held during the year with Dr. Horsfall in the chair. Membership has been twenty, with country members from Atherton, Mossman and Gordonvale.

Post-graduate lectures were delivered by Dr. Sapsford, Dr. Quinn, Dr. Landy and Dr. Hawker, and were very much appreciated by the Local Association.

Clinical meetings organized by Dr. Paxon have continued to maintain a high standard and to attract a large interested group. In addition to papers prepared by local members, slides and recordings borrowed from the Post-Graduate Committee have been successfully introduced into these evenings.

During the year a small party representing the National Health Service, consisting of Mr. R. White, of Canberra, and Dr. D. A. Dowling and Mr. K. Bate, of Brisbane, listened sympathetically to our various complaints and in turn passed on some helpful advice. We feel these gatherings help to keep the service functioning smoothly and look forward to future meetings.

Our members have been active in local authority matters. Dr. C. H. Knott has been elected an alderman of the Cairns City Council; Dr. J. H. Barnes is now a member of the Cairns Hospital Board, and Dr. B. G. Clarke a member of the Ambulance Board. Our congratulations are extended to all three of them on attaining positions where their medical training will be of help to the whole community.

Ipswich and West Moreton Local Medical Association.

The following officers were elected at the annual meeting, which was held on February 20, 1958: President, Dr. A. H. B. Clarke; Secretary, Dr. K. F. Brennan.

During the year ten meetings were held, including two clinical meetings, at which cases were presented by local practitioners, and the annual general meeting. Lectures were given as follows: the inaugural J. A. Cameron Memorial Lecture was delivered by the Honourable Donald

Cameron, O.B.E., Minister for Health, on "The Future of Medical Practice in Australia"; Dr. Stephens gave an interesting discourse on matters concerning the profession and the Repatriation Department; Dr. O'Reilly addressed us on "Bronchiectasis"; Dr. V. L. Matchett gave a lecture entitled "Neurosis in General Practice"; Dr. Fitzwater visited us and spoke on "Common Problems in the Management and Diagnosis of Chest Complaints"; Dr. Lee discussed "Venous Disorders of the Lower Limb"; Dr. Lahz and Dr. Coates addressed the meeting and spoke on the "Painful Shoulder" and "Causes of Nasal Obstruction" respectively.

The Association is extremely grateful to the Post-Graduate Committee and to the individual lecturers for their combined efforts during the past year. These meetings were, in the main, well attended, but unfortunately the local clinical meetings were not received with as much enthusiasm.

The Association is also appreciative of the help given by the Hospital Board, Medical Superintendent and Matron for their courtesy in providing lecture room facilities and supper at the conclusion of the meetings.

K. F. BRENNAN,
Honorary Secretary.

Gladstone and District Local Medical Association.

On February 12, 1958, at an inaugural meeting of medical practitioners in Gladstone, the Local Association was re-formed. The office bearers are: President, Dr. Walter Yum; Honorary Secretary-Treasurer, Dr. J. A. McGree.

Six meetings have been held up to date and have been enthusiastically attended. Several important matters were discussed at the meetings, notably those dealing with workers' compensation cases, the agenda for Convocation, our relationship with the local Hospital Board, charges for Salk vaccination of adults in campaigns conducted by local authorities.

The Association claims to have been instrumental in achieving two worthy aims—cooperation with the Mayor of Gladstone in approval being given for the establishment of a home nursing service in Gladstone, and the provision of an up-to-date anaesthetic machine at the Gladstone Hospital.

Dr. Peter Palmer, the Medical Superintendent of the Gladstone Hospital, represented the Association at the Convocation held in April. It is hoped to have a delegate present at the next Convocation.

JOHN A. MCGREE,
Honorary Secretary.

Mackay Local Medical Association.

The Mackay Local Medical Association, with a membership of 24, continues to function solidly under the presidency of Dr. P. Hopkins. Business meetings were held every quarter at which the following papers were presented: Dr. I. Chenoweth, "Sudden Death in Mackay"; Dr. P. Hopkins, "The K Antibody Reaction"; "The Latest Therapy of Lead Poisoning"; "A Case of Toxemia of Pregnancy"; Dr. G. Bolton, "Migraine".

Visiting post-graduate lecturers were Dr. J. Byrne, speaking on "Recent Advances in Obstetrics", and Dr. B. Hirschfeld, on "Oral Treatment of Diabetes".

Several emergency meetings were held to discuss workers' compensation, Convocation and representation on hospital boards. In September, Lederle showed films on "Diamox" and "Varidase", whilst in March Winthrop presented a party with films. A very happy meeting held on September 17 was the occasion of Dr. C. Williams's eightieth birthday.

Throughout the year the members have been busy planning for the North Queensland Medical Conference to be held in Mackay from September 22 to 27. An excellent academic programme balanced by a full list of social engagements should lead to a successful week. Highlight of the conference is the visit of Dr. Alice Stewart from Oxford.

The Medical Science Group has not functioned this year, the members devoting the time to planning for Conference.

E. H. BROWN,
Honorary Secretary.

Maryborough Local Medical Association.

During the year we had much pleasure in attending a farewell function and presentation to Dr. E. M. Thiele, one of our foundation members, who has been forced to leave general practice for health reasons. This was mingled with regret, as Dr. Thiele has been most active in local branch and civic affairs in Maryborough.

We are looking forward to post-graduate lectures in mid-July.

R. M. MACLEOD,
Honorary Secretary.

Nambour and District Local Association.

Last year's activities followed the same pattern as the previous years. We try to arrange two post-graduate lectures in the first half of the year, a post-graduate week-end in September, and one more lecture in November. Once more these were all well attended, and we all look forward to their continuance. Owing to the scattered nature of the district we do not hold any other meetings throughout the year.

The Association was very happy with the idea of biennial convocation, and we feel that it keeps us very much in touch with Council activities and with the views of other associations.

One of our members, Dr. A. S. Raine, was appointed to the Maroochy Hospitals Board, and we feel that this appointment, together with the other medical appointments throughout the State, represents a forward step in hospital control.

ALLAN S. RAINE,
Honorary Secretary.

Rockhampton and District Local Association.

During the last year this Association has again been very active. During the year the Gladstone members decided that the distance from Gladstone to Rockhampton prevented them from regular attendance at this Local Association's meetings and decided to re-form the Gladstone Local Association.

The clinical aspects, as usual, were well covered. Monthly clinical meetings were held. At most of these a paper was presented by a private practitioner, and clinical cases were presented by the staff of the Rockhampton General Hospital. In addition we had visits from three lecturers from the Post-Graduate Medical Education Committee. The three lecturers were Dr. K. Watson, Dr. N. C. Davis and Dr. V. Sampson; the time and the effort that these lecturers gave in preparing and delivering their addresses were greatly appreciated by all members. We were also most fortunate in having Dr. and Mrs. J. Ralston Paterson visit this area and, whilst here, they addressed members of this Local Association.

Three special meetings were called to discuss "Workers' Compensation Fees", "The Agenda for the First Convocation" and "The Constitution of Hospital Boards". It is interesting to record that none of the local citizens recommended by this Local Association and no medical practitioner was appointed to the Rockhampton and District Hospital Board by the present Government.

The two annual social functions, which this year took the form of dinner dances, were well attended by all members.

The officers elected for the year were: Dr. M. R. Gold, President; Dr. D. N. Bottcher, Vice-President; Dr. J. F. Gillogley, Secretary-Treasurer. The present membership is 41.

J. F. GILLOGLEY,
Honorary Secretary.

South Coast Local Association.

A successful year is reported by this Local Association. Active membership now numbers 18, an increase of three in the last year.

Four clinical meetings were arranged for visits by lecturers made available by the Post-Graduate Committee, and these were exceptionally well attended and much appreciated.

The institution of a biennial convocation is considered by this Association to be a progressive step.

T. H. GAVEN,
President.

Toowoomba and District Local Association.

During the current year two general and six executive meetings were held.

The Association is grateful to the Post-Graduate Committee for provision through the year and at the post-graduate week-end in June of the following lecturers: Dr. A. J. Splatt, Dr. R. Row, Dr. J. Tonge, Dr. D. Clark Ryan, Dr. H. G. Wilson, Dr. R. Aitken and Dr. M. J. Gallagher. Thanks are also due to Dr. O'Brien, a visiting pathologist, for an interesting lecture.

Social activities included the annual dinner and the function in association with the post-graduate week-end.

F. E. HADDAN,
Honorary Secretary.

Salaried Medical Officers' Group (British Medical Association).

The Salaried Medical Officers' Group of the British Medical Association would like to submit this annual report.

There are some 350 salaried medical officers in Queensland, and of them sixty have contributed financially for the current year. Owing to a favourable bank balance of £50 we have suspended, by constitutional amendment, annual subscriptions and charge an "entrance fee" of 10s.

The committee for the year comprises: Dr. E. W. Abrahams (President), Dr. D. J. Brand (Honorary Secretary), Dr. J. J. Herron (Honorary Treasurer), and committee members Professor D. Gordon, Dr. A. F. Knyvett, Dr. K. S. Mowatt and Dr. W. J. Woolcock—Professor D. Gordon and Dr. A. F. Knyvett being coopted members who have kindly consented to make their experienced services available to the Group.

Nine committee meetings have been held during the year, and in addition the committee attended the first B.M.A. Convocation.

One of our present aims is achieving superannuation, and it appears likely this will be working by the end of this year.

Establishment of library facilities at hospitals is in its early stages, and a detailed plan should be in the hands of the British Medical Association shortly.

The major defects in uninsured transport for medical officers have now been adjusted.

Correct presentation of Group problems to outside bodies will follow a motion at the recent Convocation.

It is noted that salaries have been adjusted automatically in accord with general salary changes in the State.

The problems of study leave, sick leave and locum provision have not yet been settled, but they also have not been forgotten.

We would like to thank the B.M.A. House staff for their assistance with some of our clerical work.

D. J. BRAND,
Honorary Secretary.

General Practitioner Group (British Medical Association).

The General Practitioner Group, in pursuing its policy of representing general practitioners in all matters in their interest, met in committee in October, 1957, February, March and June, 1958.

As many opinions as could be gathered, mostly by personal communications, were voiced so that Council could be informed of general practitioners' views on S.G.I.O., P.M.S., and Repatriation services, and agenda for Convocation.

To the inaugural Convocation held in April, 1958, ten members were invited, as proportionately representing metropolitan general practitioners. Local Associations sent their own delegates. The Committee suggested to Convocation that this number should be reduced to seven (7) in future and even then would be disproportionate when viewed in the light of an attendance of 10 at the 1957 annual general meeting.

The Convocation was successful in providing an opportunity for representatives to hear of Council's efforts on their behalf and in turn submitting proposals for consideration. The short notice was unavoidable under the circumstances, and unfortunately too many intriguing points raised had not the benefit of deliberation.

We are assured the agenda will be completed and circulated in good time, now that the initial difficulties have been settled.

Following Council's compiling a schedule of average fees in general practice, which lists are available on application to B.M.A. House, the Committee had prepared cards of basic fees for display in surgeries and distributed them to members in touch with the Group.

J. K. FARNWORTH,
Honorary Secretary.

Ophthalmological Society of Australia (British Medical Association).

A report of the year's activities of the Section is as follows:

Six meetings have been held, two with clinical papers, one by Dr. P. Jameson Evans, of Birmingham (preceded by a dinner in his honour), and the other by Dr. H. G. Wilson.

Negotiations with the Minister of Health, via the British Medical Association, have resulted in the appointment of Dr. A. Harrison to the Board of Optical Registration.

A public relations committee has been formed. Our library (housed with the British Medical Association) has been organized and extended. There has been considerable activity in association with the Federal Body of the Ophthalmological Society of Australia on Australia-wide ophthalmological matters.

B. G. WILSON,
Honorary Secretary.

Sections for the Study of Special Branches of Medical Knowledge.

Orthopaedic Section.

The Orthopaedic Section met on several occasions during the year to discuss matters arising out of our relationship with the State Government Insurance Commissioner.

The Section appreciated the action of Council in arranging for Council representatives to meet members of the Section to discuss and advise on problems associated with workers' compensation.

ANTHONY MCSWEENEY,
Honorary Secretary.

Pediatric Section.

Report for the year ended June 30, 1958.

Chairman, Dr. P. A. Earnshaw; Honorary Secretary, Dr. D. Clark Ryan.

There are now 22 members of this Section. A business meeting was held in October, 1957. It discussed various problems pertaining to child health. Clinical meetings, which took the form of presentation of cases, were held alternately at the Brisbane Children's Hospital and the Mater Children's Hospital.

D. CLARK RYAN,
Honorary Secretary.

Radiological Section.

During the year two clinical meetings were held—the first a symposium on congenital heart disease and the second a film evening at South Brisbane Hospital. These were well attended.

Four general meetings were held, and discussion, in the main, was confined to the genetic effects of radiation and measures which could be taken to minimize potential dangers to patients. The question of the examination of private patients at the public hospitals was raised, and a recommended schedule of fees for all sections was forwarded to the British Medical Association for its consideration.

J. H. HOOD,
Honorary Secretary.

Section of the History of Medicine.

The outstanding feature of this year's activities of the Section of the History of Medicine was the first combined lecture of the British Medical Association and the Historical Society of Queensland, given by Professor John Bostock in the new B.M.A. building. The subject matter was "Medicine's Increasing Dependence on History". This was attended by some fifty members.

The Bancroft Oration, delivered by Professor A. A. Abbie, on "Anthropology and the Medicine of Moses", was also of much historical interest.

British Medical Agency of Queensland Pty. Ltd.

Directors: Dr. Norman L. Sherwood (Chairman), Dr. J. G. Wagner, Dr. H. W. Horn, Dr. G. A. McLean, Dr. A. F. McSweeney, Dr. L. J. J. Nye, Dr. B. N. Adsett, Dr. Robert Miller.

The first twelve months' operations in B.M.A. House at Kelvin Grove have been full of interest. Although accommodation must of necessity remain limited with the expansion that has taken place, we are fortunate in being able to display many vital necessities in the form of furniture, medical instruments, equipment and a wide range of stationery in surroundings commensurate and suitable to medical standards. The engagement of additional staff to cater for instruments and medical equipment for the profession has proved of immense benefit, and those members who have taken advantage of this new venture have expressed their appreciation for this service and the undoubted financial gain by conducting their business in their own House.

Purchases of whatever nature can be made through the Agency, and those members who treat the Agency as a "safety valve" obtain quotations and subsequently purchase at B.M.A. House or elsewhere according to their individual interests; such action is their safeguard against exploitation

Recordings: Thanks to the generosity of Nicholas Pty. Ltd., microgroove disks (with relevant slides) of selected lectures by visiting overseas lecturers have been made available to the Queensland Committee. These recordings are proving popular with practitioners.

Acknowledgements: The Post-Graduate Committee gratefully acknowledges the generous donation of a Philips four-speed record player by the Sigma Co. Ltd., Melbourne. This gift was made as a tribute to the late Dr. Otto Hirschfeld.

The Committee extends sincere thanks to all doctors who have participated in its lecture programmes, especially to the lecturers in the advanced medicine and surgery courses, who generously gave their services in an honorary capacity.

Final thanks go to the British Medical Association for the publication of the Committee's notice in the monthly circulars, and for support and assistance throughout the year; and to the British Medical Association staff for their cooperation and help at all times.

L. I. MCGUIRE,
Director, Post-Graduate Studies.

Social.

The annual fork dinner attended by a record number of 350 members and guests was held in conjunction with the official opening of British Medical Association House by the Right Honourable the Lord Mayor of Brisbane, Alderman T. R. Groom, on September 13, 1958. The floodlit building, with coloured lights festooning the trees and grounds, made a delightful setting to what was generally agreed to be a most pleasant and successful evening.

Golf Match.

The annual golf match between members of the Australian Dental Association and the British Medical Association took place in September. It resulted in a victory for the British Medical Association, who thus regained the Phillips Cup, which had been held by the Australian Dental Association.

Congratulations.

During the year various honours were conferred upon members of the Branch, who are to be congratulated: Sir

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION (INCORPORATED).

Statement of Receipts and Payments for Twelve Months ended June 30, 1958.

EXPENDITURE		INCOME	
	£ s. d.		£ s. d.
1958—June 30.		1958—June 30.	
To Branch Expenses—		By Subscriptions—	
Salaries, Honoraria and Pension	4,153 13 8	Queensland Branch	9,147 6 3
Long Service Leave		Portion of Journal Subs. to be	
Paid	225 3 8	applied to Australasian Medical	
Less, Amount already		Publishing Co. Ltd. Series "E"	
provided for Long		Debtentures	636 15 0
Service Leave .. 200 0 0			9,784 1 3
	25 3 8	" Interest—	
Printing and Stationery	491 0 7	Commonwealth Inscribed Stock	
Postage and Duty Stamps	412 8 3	(Accumulated Interest on Post-	
Reconditioning Furniture	247 8 3	Grad. Course Fund Investment)	80 4 8
Legal Expenses	241 4 6	F. & A. Morton—Mortgage Bart-	
Lighting and Gas (B.M.A. House)	152 12 11	ley Street Property	159 18 0
Interest—E. S. & A. Bank 57 11 3		Australasian Medical Publishing	
Interest—Aust. Medical		Co. Ltd. on Funds awaiting	
Land Investment Co. 87 1 0		application	
Council and General Meeting	144 12 8	To Debtentures .. 10 7 8	
Expenses	131 14 5	On Debtentures .. 244 1 3	254 8 11
Telephone Rental and Calls	125 18 5		494 11 7
Audit and Accountancy Fees	94 10 0	" Rents—	
Expenses Bancroft Oration	71 10 7	B.M.A. House—Herston	885 18 0
Social Functions	55 6 1	Less—Expenses	
Repairs Office Equipment and		Municipal Rates .. 321 3 0	
Furniture	47 5 2	Cleaning and Gar-	
Bank Charges, Newspapers and		dening	580 3 11
Sundries	40 6 4	State Land Tax .. 166 9 2	
Presentation—M. Spooner	38 2 6	Insurance	67 14 3
Staff Membership Medical Bene-		Repairs and Main-	
fits Fund	28 17 6	tenance	16 19 11
Advertising	15 0 2		1,152 10 3
Workers' Compensation Insurance	12 5 1		Cr. £266 12 3
Travelling Expenses	12 3 8		
	6,541 4 5	97 Herston Road Property	98 14 0
" General—		Less—Expenses—	
Post-Graduate Grant	500 0 0	Municipal Rates .. 52 3 0	
Federal Council Capitation Fees	1,535 0 0	Insurance	5 10 7
Library Expenditure .. 431 7 2			57 13 7
Library Removal Costs 78 11 6			£41 0 5
	509 18 8	Wickham Terrace Property Ex-	
Provision for Staff Superannuation	120 0 0	penses—	
	2,664 18 8	State Land Tax .. 72 9 2	
" Depreciation—		Less, Refund of	
Furniture, Fittings, Balopticon		Insurance and	
and Typewriters	126 12 3	Electricity	7 2 5
Floor Covering and Household			Cr. £65 6 9
Equipment	35 5 11		
Duplicator	23 17 0		Cr. 290 18 7
Motor Mower	7 6 2	" General—	
Refrigeration Installation	4 4 3	Clerical Assistance and Hire of	
Fire Alarm System	2 3 5	Office Equipment	208 0 0
Wire Recorder	2 0 0	Directors' Fees—Yorkshire Insur-	
	201 8 0	ance Co. Ltd.	100 0 0
" Net Surplus for Year—		Sale of Diet Sheets and Hand-	
Transferred to Accumulation		books	3 14 1
Account	896 1 3	Donation—B.M.A. Funds	4 4 0
			315 18 1
	£10,303 12 4		£10,303 12 4

Kenneth Fraser, on the honour of Knight Bachelor conferred on him by Her Majesty the Queen; Dr. Harold Crawford, who was made a Commander of the Order of the British Empire; Dr. S. A. McDonnell, who was made an Officer of the Order of the British Empire and was also appointed a member of the Medical Board of Queensland; Sir Alexander Murphy, on his award of the degree of Honorary Doctor of Science by the University of Tasmania; Dr. H. W. Noble, on his appointment as Minister for Health and Home Affairs in the State Government; Professor Neville G. Sutton, on his appointment as Dean of the Faculty of Medicine, University of Queensland; Dr. Neville C. Davis, on his award of the Sir Henry Simpson Newland Prize in Surgery.

Conclusion.

This year has followed the pattern of previous years with regard to the number and variety of subjects dealt with by Council. I wish to record my sincere thanks to those members of Council on whom has fallen the heavy responsibility of preparation and orderly presentation of this material, in Dr. A. E. Lee (Chairman of Council), Dr. W. D. Friend (Honorary Secretary), Dr. Charles Roe (Chairman of Subcommittees), and Dr. Robert Miller (Honorary Secretary of Subcommittees).

To Mr. C. C. Jenkins and his staff, especially Miss Joy Finch, who have given unfailingly patient and loyal service to Council and the welfare of the Branch, I can only express a deep debt of gratitude.

During the year it has been necessary for deputations from the Council to interview two Ministers of the Crown, viz., the Treasurer, the Hon. T. A. Hiley, and the Minister for Health and Home Affairs, the Hon. Dr. H. W. Noble, and I wish to record my thanks for the courteous manner in which they have received our deputations and the sympathetic attention that they have given our problems.

It is with pleasure that I am able to record that negotiations with the Insurance Commissioner, Mr. C. A. Grimley, have proceeded to such a level that I can confidently predict a satisfactory conclusion to the differences that have existed for some time past.

One feature in the organization of the Branch which I feel needs some special comment was the establishment of Convocation. The assembly of delegates representing the whole body of the profession, especially including the representatives of our Local Associations, and the free debate on all matters affecting the Branch must be of inestimable value in the deliberations of the Council in the future. It will, I am sure, bring the members of the Branch in much closer contact and assure them that their Council is at great pains to always act in the best interests of the profession as a whole.

To my friend and esteemed colleague Dr. S. A. McDonnell I wish a most successful and happy year of office as President of the Branch.

L. A. LITTLE,
President.

BALANCE SHEET AND FINANCIAL STATEMENT.

The balance sheet and financial statement for the year ended June 30, 1958, and the auditors' report were presented by the Honorary Treasurer, Dr. D. P. Sapsford, and adopted.

OFFICE-BEARERS AND COUNCILLORS.

It was announced that the following members had been elected office-bearers and councillors for the year 1957-1958:

President: Dr. S. A. McDonnell.

Past President: Dr. L. A. Little.

President-Elect: Dr. Paul W. Hopkins.

Honorary Secretary: Dr. W. D. Friend.

Councillors Elected in 1958: Dr. E. W. Abrahams, Dr. J. R. Adam, Dr. G. R. Anderson, Dr. Robert Miller, Dr. K. S. Mowatt, Dr. H. S. Patterson, Dr. D. P. Sapsford.

Councillors Elected in 1957 for Two Years: Dr. B. N. Adsett, Dr. Neville C. Davis, Professor D. Gordon, Dr. H. W. Horn, Dr. A. E. Lee, Dr. Ian G. McPhee, Dr. Charles Roe.

ELECTION OF VICE-PRESIDENT.

The President read Article 55 of the Memorandum and Articles of Association of the Branch and announced that, in accordance with the power granted by this Article, the Council had unanimously resolved to nominate Dr. J. G. Wagner for election to the office of Vice-President of the Branch, in recognition of his long and faithful service to

the Association. The meeting then carried unanimously a motion that Dr. J. G. Wagner be elected Vice-President of the Branch.

ETHICS COMMITTEE.

The following members were reelected to the Ethics Committee of the Branch for the year 1957-1958: Sir Alexander Murphy, Dr. B. L. W. Clarke, Dr. F. W. R. Lukin, Dr. L. J. J. Nye, Dr. J. J. Power, Dr. N. L. Sherwood, Dr. W. H. Steel.

AUDITORS.

Messrs. Groom, Sanderson and Company, Chartered Accountants (Aust.), were reelected auditors for the ensuing year.

ADJOURNMENT.

The meeting then adjourned until 8.30 p.m., when it was resumed in the Main Hall of the University of Queensland, St. Lucia, in the presence of His Excellency the Governor of Queensland, as well as other guests and members.

MEMORIAL ROLL.

The immediate Past President, Dr. Felix Arden, read the Memorial Roll of members of the Queensland Branch of the British Medical Association, all present standing.

PRESENTATION OF PRIZES.

The following prizes, awarded on the recommendation of the Faculty of Medicine of the University of Queensland, were presented:

Memorial Prize of the Queensland Branch of the British Medical Association: Dr. John Leonard Seymour.

Harold Plant Memorial Prize: Dr. Richard Douglas Gordon.

ADDRESS BY SIR ARTHUR FADDEN.

Sir Arthur Fadden, in a short address, paid personal tribute to the medical profession in Australia and discussed the cost of maintenance of the National Health and Social Services of the Commonwealth.

INDUCTION OF PRESIDENT.

The retiring President introduced the incoming President, Dr. S. A. McDonnell, and installed him in the presidential chair.

PRESIDENT'S ADDRESS.

The incoming President, Dr. S. A. McDonnell, delivered his presidential address (see page 717).

Out of the Past.

In this column will be published from time to time extracts, taken from medical journals, newspapers, official and historical records, diaries and so on, dealing with events connected with the early medical history of Australia.

ADELAIDE AND SOUTH AUSTRALIAN BRANCH OF BRITISH MEDICAL ASSOCIATION. REPORT OF COUNCIL.¹

[From the Australasian Medical Gazette, October, 1881.]

THE Council has to report the receipt of a letter from the General Secretary of the British Medical Association, recognizing the South Australian Branch, which contained a copy of a minute of the Committee of Council held July 7 1880 as follows. "Read—communication from Dr. Cleland of Adelaide of March 6 1880: whereupon it was resolved—"That the Branch for Adelaide and South Australia be, and it is hereby formally recognized as a Branch of the British Medical Association, and that the proposed By-laws be approved." "Resolved also that the Committee of Council desired to offer their warm welcome to the Australian Branches formed at Adelaide, Melbourne, and Sydney: now formally recognized, and trust that the new Branches may not only be the means of cementing the good feeling which already exists between the members of the profession in England and her colonies but may also facilitate the interchange of ideas, and so prove of value in the advancement of medical science, and the interests of the medical profession."

¹From the original in the Mitchell Library, Sydney.

Correspondence.

AUSTRALIA AND THE COLOMBO PLAN.

SIR: Your editorial in the issue of October 25 comments very ably on Australia's part in assisting our neighbour countries in Asia under the auspices of the Colombo Plan.

It has been obvious for a long time that the main problem of most Asian countries is that of balancing food supply with increasing population, and Colombo Plan aid is largely governed by this outstanding need. However, the general medical field has certainly received a fair measure of attention, and the list of training facilities and items of equipment which have been, and are being, supplied by Australia alone are significant.

Mr. Charles Gamba, in his article on Australian-Asian understanding, clearly makes the point that, whilst the present scope of the Plan cannot do much more than scratch the surface of the difficult problem of raising general living standards in Asia, yet it is proving of great value in promoting goodwill and understanding; as Mr. Gamba so rightly states, "... Australia must have friends in Asia, not among the small political elites that will disappear as history is made, but among the Asian millions—the 'people' and their leaders".

Health is such a personal matter, directly affecting every individual in the world, that any visible addition or improvement to a country's medical facilities can automatically create in the mind of each person the idea that he personally derives some benefit from it, or at least may one day be very glad of its services in times of illness or epidemic. Other countries have provided tangible items of equipment, such as mobile X-ray clinics and cobalt units, in addition to extensive contributions to such institutions as the All-India Institute of Medical Sciences. Backed by good public relations work, a large measure of goodwill has rightly been created for the donors.

It is in the medical field that Australia can readily provide from her own resources assistance of a type which is badly needed, which can be readily seen and understood by the general population, and which is in the best humanitarian concepts of the Western races, thus placing it above any possible hint of political bias on either side.

A group of companies interested in the manufacture of medical equipment and of pre-fabricated hospitals has recently been formed under the aegis of the Trade Department to export their products. This company, the Australian Medical Export Company Pty. Ltd., is an entirely non-profit organization, with particular interest in Asian countries and their development. We have devised a plan whereby it is suggested that Australia should make available to eligible countries complete hospitals under Colombo Plan Aid, fully equipped and furnished to our own high standards.

Apart from being a valuable addition to a country's hospital facilities, most of which are woefully inadequate, we visualize the employment of the "Australian Hospital" (as we have termed it) in the role of a training establishment also. Already, Australia's effort in training medical staff is impressive, and the numbers of Asian students to be seen in our establishments confirm this, but training can be extended to far greater numbers if the establishments be provided in their own countries. Such a hospital would be an ideal venue for training courses, also courses of lectures by visiting Australian specialists; where technical equipment was required in connexion with courses or lectures, Australian products would be employed, thus demonstrating in practical fashion to those present our country's capabilities.

We have already made special surveys in most of the Asian countries in order to put in groundwork and to establish the network of suitable agents which is essential to the correct functioning of an export organization. During these journeys, it has repeatedly been brought home to us that there is much ignorance of Australia's capabilities in the manufacture of medical equipment, and surprise at our technical capacity was frequently expressed. It is very desirable that such ignorance be dispelled. An Australian Hospital on the lines we have indicated would automatically ensure that the whole of the medical profession in the recipient country would be aware of our technical skills and standing in the medical field, and that at least a proportion would obtain first-hand knowledge of our methods and equipment.

On the commercial side, a hospital of this nature would provide a working showroom of Australia's medical and other industries, assisting the efforts of our Trade Commissioners and contributing generally to the export trade which so vitally needs to be increased. In addition, Australian prestige would be greatly enhanced and our leadership in our part of the globe in the manufacture of medical equipment amply demonstrated.

The scheme which we have outlined has been discussed in detail with Australian doctors who have worked in Asian countries, as well as with Asian doctors in their own countries, and all have displayed unqualified enthusiasm.

Yours, etc.,

A. F. HUGGINS,

Chairman of Directors, Australian
Medical Export Company Pty.
Ltd.

196 Church Street,
Richmond,
Melbourne.
November 3, 1958.

SYSTEMIC LUPUS ERYTHEMATOSUS.

SIR: I posted a copy of my letter to your Journal, which was published in THE MEDICAL JOURNAL OF AUSTRALIA, October 11, page 511, to Dr. J. R. Haserick for his information. I found that in one respect my memory was in error in stating that he was the discoverer of the lupus erythematosus cell; the discovery was due to Hargraves and his associates.

Dr. Haserick's contribution was the discovery of the L.E. factor. Dr. Haserick did help to popularize Hargraves's discovery, but did not actually discover the L.E. cell itself. Consequently, I would be grateful if you would publish this fact in order to correct a wrong impression my letter gave, with my apologies for the mistake.

Also, in paragraph 3, the year date 1928 after Biett's name should read 1728.

Yours, etc.,

J. C. BELISARIO.

"Harley",
143 Macquarie Street,
Sydney.
November 11, 1958.

MEDICAL ETHICS AND INSURANCE REPORTS.

SIR: In 1855 Robert Browning published his "Men and Women". Volume I contains a learned and beautiful poem, "An Epistle". This concerns the "Strange Medical Experiences of Karshish, the Arab Physician". The poem describes, fancifully and clinically, the unusual case of one Lazarus. Karshish is uncertain whether the latter's resurrection is due to the medical skill of the "learned leech", Christ, or whether Christ is God Himself. The poem has all the art of "A Peripatetic Correspondent"—and more. One of Karshish's asides is the astute observation on Judea's practitioners, quoted by Dr. Schmalzbach (M. J. AUSTRALIA, November 8, 1958).

I write this merely that the prince of English writers be credited duly with one of his masterpieces, which has been attributed by Dr. Schmalzbach to an Arabian of 1900 years ago.

Yours, etc.,

JOHN R. S. LAHZ.

Ballow Chambers,
Wickham Terrace,
Brisbane,
Queensland.
November 12, 1958.

SOME OBSERVATIONS ON THE MANAGEMENT OF THYROID DISEASE.

SIR: In effect, Dr. W. A. Seldon pleads that in patients with suspected thyroid disease, all thyroid-affecting medication be withheld until a firm diagnosis is made. Faced with a problem patient, the practitioner must often be tempted to prescribe this or that medication as a diagnostic trial.

Such a step, however, considerably aggravates the difficulties of the consultant to whom the patient may subsequently be referred, and thereby may delay definitive treatment. Even when "thyroid" patients are untreated previously, care and time may be required to establish the diagnosis, even in a clinic where special facilities are available.

When, after careful clinical study, the practitioner remains doubtful as to the presence of thyrotoxicosis, it is recommended that he prescribe a mild sedative and keep the patient under regular observation. Repeated clinical assessments may clarify the diagnostic problem. Moreover, if the disease is so mild as to defy detection, some delay in diagnosis and treatment will occasion relatively small inconvenience to the patient.

Dr. Seldon stresses the help that may be obtained from tests of radio-iodine uptake and estimations of the serum protein-bound iodine. Both are desirable for a high standard of management; they are complementary tests giving us valuable information concerning different aspects of thyroid function, iodine uptake and hormone secretion. The results of both procedures require critical evaluation. If thyroid-affecting medication has been withheld previously, this evaluation is obviously much simpler.

Treatment also may be facilitated if the practitioner holds his hand, because the choice of treatment and the extent to which it is pushed may be determined by the intensity of the patient's disease. This can only be readily assessed in its untreated state. For instance, the therapeutic dose of radioactive iodine required for an individual thyrotoxic is best calculated from the true I^{131} uptake.

Dr. Seldon may have overstated the difficulties of estimating the serum protein-bound iodine. The technique has been simplified in recent years. These estimations have been done in Melbourne and Adelaide for some time, and are becoming available in at least three laboratories in Sydney.

Yours, etc.,

Unit of Clinical Investigation, F. F. RUNDLE.
Royal North Shore Hospital of Sydney,
Crows Nest.
November 12, 1958.

Notes and News.

St. George Hospital Reunion.

The first reunion of former resident medical officers of the St. George Hospital, Kogarah, will be held at 7.30 p.m. on Friday, December 5, 1958, at "Gilwell", 1 Carrington Avenue, Hurstville. Tickets are available on application to the Medical Superintendent of the hospital, telephone LW 5034, extension 46A.

The British Pharmacopoeia.

Word has been received from the Department of Public Health of N.S.W. that a new "British Pharmacopoeia" became operative in Great Britain on September 1, 1958, and that by arrangement with other States, December 1, 1958, has been chosen as the date upon which it will become operative in Australia.

The N.S.W. Sports Medicine Association.

The third annual general meeting of the N.S.W. Sports Medicine Association will be held on Wednesday, December 10, 1958, at 8 p.m., in the Board Room of the N.S.W. Sports Club, 10-12 Hunter Street, Sydney. All nominations for the 1959 Council must be in the hands of the Secretary, Dr. B. Towers, 44 President Avenue, Caringbah, by December 3.

International Register of Medical Films.

"L'Association nationale des médecins cinéastes et des cinéastes scientifiques de France" is increasing its "International Register of Medical Films". Directors and producers of films dealing with the medical and veterinary sciences, pharmacology, biology, etc., are requested to send a list of their films already completed or in the course of production. The title of each film should be followed by the date of its production and an indication of its main technical factors (gauge, type of emulsion, type of sound track, timing, language of the commentary). In order to avoid repetition, those sending lists of films are also requested to state the name and nature of meetings or organizations connected with the production of the films, and any awards obtained.

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED NOVEMBER 8, 1958.¹

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	7(3)	..	..	1	..	..	..	8
Amoebiasis
Ankylostomiasis	3	..	..	..	..	..	3
Anthrax
Bilharziasis
Brucellosis	1	..	..	..	..	..	..	1
Cholera
Chorea (St. Vitus)	1	..	..	1	..	..	..	2
Dengue
Diarrhoea (Infantile)	5(1)	10(9)	5(5)	..	..	1	1	..	22
Diphtheria	4(4)	..	..	..	..	..	..	4
Dysentery (Bacillary)	4(3)	..	7(3)	..	1	..	12
Encephalitis	2(2)	..	..	..	..	..	..	2
Filariasis
Homologous Serum Jaundice
Hydatid
Infective Hepatitis	106(31)	32(27)	7(3)	12(4)	6(3)	..	..	..	163
Lead Poisoning
Leprosy	2	..	2
Leptospirosis	1(1)	..	..	..	..	..	1
Malaria	1(1)	1	..	..	..	..	..	2
Meningococcal Infection	2(2)	1(1)	..	..	..	..	..	3
Ophthalmia
Ornithosis
Paratyphoid
Plague
Poliomyelitis	1	3(2)	..	1	..	..	..	..	5
Puerperal Fever	1
Rubella	130(100)	2(2)	10(8)	87(77)	..	..	..	229
Salmonella Infection	1(1)	..	..	..	1
Scarlet Fever	7(3)	21(13)	3(2)	5(2)	2(2)	2	..	..	40
Smallpox
Tetanus	2	2(1)	..	..	..	..	..	4
Trachoma	22	..	22
Trichinosis
Tuberculosis	43(27)	18(14)	6(3)	6(5)	13(9)	7(3)	..	..	93
Typhoid Fever
Typhus (Flea-, Mite- and Tick-borne)	1(1)	..	..	..	..	..	1
Typhus (Louse-borne)
Yellow Fever

¹ Figures in parentheses are those for the metropolitan area.

The Association sponsors every year, in every French city in which there is a medical school, the "Festival international permanent du film médico-chirurgical et scientifique". The Festival takes place in eight French cities, two sessions being held per year, and has an average attendance of 6000 physicians. Directors or producers of medical, surgical and scientific films wishing to have their films shown at the Festival should apply to the Secretary of the Association.

All communications should be sent to the "Association nationale des médecins cinéastes scientifiques de France", 23, Boulevard de Latour-Maubourg, Paris, VII^e, France.

Post-Graduate Work.

THE POST-GRADUATE COMMITTEE IN MEDICINE IN THE UNIVERSITY OF SYDNEY.

Courses in Advanced Medicine.

THE Post-Graduate Committee in Medicine in the University of Sydney announces that a course in advanced medicine, suitable for candidates for the examination for membership of The Royal Australasian College of Physicians, will be held for a period of eleven weeks from January 12 to March 28, 1959. The course will take place in the afternoons from Monday to Saturday.

It is desirable that candidates should have had considerable experience in clinical work, either in hospital or in medical practice, before considering themselves prepared to take examinations for higher medical diplomas. The course will be found of value to practitioners intending to devote further time to acquiring such experience before taking the examination, and to those who are seeking higher qualifications, but who are anxious to widen their knowledge of internal medicine. It is expected that students will devote considerable time to the reading of text-books and current medical literature.

The fee for attendance is 30 guineas, and early application to the Committee is desirable.

Courses for Part I D.D.R. and D.T.R.

Courses for Part I of the Diplomas in Diagnostic Radiology and in Therapeutic Radiology in the University of Sydney will be held from March 14, 1959, for a period of four months. The fee for attendance is 50 guineas each course.

Method of Enrolment.

Applications to attend the above-mentioned courses should be made to the Course Secretary, Post-Graduate Committee in Medicine, 131 Macquarie Street, Sydney, from whom further particulars may be obtained. Telephones: BU 4497-8. Telegraphic address: "Postgrad Sydney."

Notice.

THE CHILDREN'S MEDICAL RESEARCH FOUNDATION OF N.S.W.

THE following is a list of donations to the Children's Medical Research Foundation of N.S.W. received from members of the medical profession in the period November 5 to 11, 1958.

Dr. R. L. Stephen: £50.

Dr. W. P. MacCallum: £25.

Dr. A. S. Johnson, Dr. A. I. Rhydderch, Dr. John Banks, Dr. and Mrs. A. E. Hornbrook: £5 5s.

Previously acknowledged: £7366 16s. 9d. Total received to date: £7465 16s. 9d.

AUSTRALIAN RADIATION SOCIETY: VICTORIAN BRANCH.

THE next meeting of the Victorian Branch of the Australian Radiation Society will be held in the lecture theatre at the Cancer Institute, 483 Little Lonsdale Street, Melbourne, C.I., at 5.30 p.m. on Tuesday, December 9, 1958. The programme is a lecture by Dr. J. F. Loutit, Director of the Radiobiological Research Unit, Harwell, entitled "Immuno-

logical Tolerance and Radiation". The convener of the meeting is Dr. J. H. Martin, Physics Department, Cancer Institute Board.

Deaths.

THE following deaths have been announced:

BEGG.—William Begg, on November 10, 1958, at Beecroft, New South Wales.

MARSHALL.—Thomas Edward Marshall, on November 14, 1958, at Orange, New South Wales.

JACKSON.—Claude Phillip Jackson, on November 17, 1958, at Sydney.

Diary for the Month.

DEC. 2.—New South Wales Branch, B.M.A.: Organization and Science Committee, 8 p.m. (with Special Groups, 8.30 p.m.).

DEC. 3.—Western Australian Branch, B.M.A.: Branch Council.

DEC. 3.—Victorian Branch, B.M.A.: Special Council Meeting.

DEC. 3.—Victorian Branch, B.M.A.: Annual Meeting.

DEC. 4.—New South Wales Branch, B.M.A.: Clinical Meeting.

DEC. 4.—South Australian Branch, B.M.A.: Council Meeting.

DEC. 8.—Victorian Branch, B.M.A.: Executive Meeting.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales. Anti-Tuberculosis Association of New South Wales. The Maitland Hospital.

South Australian Branch (Honorary Secretary, 80 Brougham Place, North Adelaide): All contract practice appointments in South Australia.

Editorial Notices.

ALL articles submitted for publication in this Journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given: surname of author, initials of author, year, full title of article, name of journal, volume, number of first page of the article. The abbreviations used for the titles of journals are those adopted by the Quarterly Cumulative Index Medicus. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors submitting illustrations are asked, if possible, to provide the originals (not photographic copies) of line drawings, graphs and diagrams, and prints from the original negatives of photomicrographs. Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary is stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2-3.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this Journal. The management cannot accept any responsibility or recognize any claim arising out of non-receipt of journals unless such notification is received within one month.

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in Australia can become subscribers to the Journal by applying to the Manager or through the usual agents and booksellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rate is £5 per annum within Australia and the British Commonwealth of Nations, and £6 per annum within America and foreign countries, payable in advance.